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ABSTRACT

A project was conducted to (1) develop test exercises for identified skills important to success in many occupations, (2) field test their practicality of administration in Norwich, Connecticut, vocational programs, and (3) survey opinions of employers and educators regarding test exercise generalizability across occupational fields and potential to measure on-the-job behaviors. Based upon skills identified by the National Assessment of Educational Progress (NAEP) as being generally useful in careers, basic work skill exercises were prepared for the forty-seven objectives published by NAEP. A questionnaire was designed as a guide for evaluating the exercises by persons who had close contact with upper grade students or graduates now working on jobs. Among the findings of the questionnaire were that reviewers rated the stated objectives as important to the job success of high school graduates and the work skill exercises as generalizable to a broad range of occupations. (Appended material includes the assessment exercises for work-skill goal areas and objectives generally useful in a broad range of occupations and careers.) (LRA)

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DEVELOPING AND TESTING AN INSTRUMENT TO ASSESS PERFORMANCE SKILLS THAT ARE IMPORTANT IN A VARIETY OF OCCUPATIONS

FINAL REPORT

Wallace R. Koby and
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Norwich Board of Education
Mahan Drive
Norwich, Connecticut

Michael J. Bohara, Superintendent of Schools

July 1978

CONNECTICUT STATE DEPARTMENT OF EDUCATION
DIVISION OF VOCATIONAL EDUCATION
BUREAU OF VOCATIONAL PROGRAM PLANNING AND DEVELOPMENT
HARTFORD, CONNECTICUT

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CONNECTICUT STATE DEPARTMENT OF EDUCATION
DIVISION OF VOCATIONAL EDUCATION
BUREAU OF VOCATIONAL PROGRAM PLANNING AND DEVELOPMENT
HARTFORD, CONNECTICUT

Summary Page

TITLE OF PROJECT: Developing and Testing an Instrument to Assess Performance Skills That are Important in a Variety of Occupations

PROJECT DIRECTOR: William Juzwic, Assistant Superintendent of Schools, Norwich

TEST DEVELOPER: Wallace R. Roby, Program evaluator for Norwich P.L. 94-482 programs

APPLICANT ORGANIZATION: Norwich Board of Education, Michael J. Bohara, Superintendent of Schools, Norwich, Connecticut

BEGINNING DATE: December 12, 1977 ENDING DATE: June 30, 1978

PROJECT OBJECTIVES: The objectives of the project were: to develop test exercises for identified skills important to success in many occupations; to field test their practicality of administration in Norwich vocational programs; and to survey opinions of employers and educators regarding test exercise generalizability across occupational fields and their potential to measure on-the-job behaviors.

PROJECT RESULTS: A total of 31 draft exercises were prepared for 47 objectives of work skills considered useful in a variety of occupations and careers. Limited time permitted field testing of only three basic work skill exercises in Norwich vocational programs. Opinions of persons knowledgeable about work with high school graduates generally rated the basic work skill exercises as a promising instrument to help assess important objectives of vocational offerings.

CONTRIBUTION TO EDUCATION: It is hoped that this compilation of exercises encourages instructional staff to direct more attention to skills generally useful in a variety of occupations and careers; makes it possible to more easily assess and record data consistently concerning these work skills of students; and stimulates the development of more "instructor-made tests" to uniquely serve the needs of Connecticut's vocational programs.

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DEVELOPING AND TESTING AN INSTRUMENT TO ASSESS PERFORMANCE SKILLS THAT ARE IMPORTANT IN A VARIETY OF OCCUPATIONS

Background

The Norwich Public Schools began three programs for students during the 1977-78 school year supported by vocational funds made available under P.L. 94-482. Even though the programs differed considerably in content, all had the common goal of providing first-hand experience in occupationsl pursuits for students.

With the vocational funds came the need to evaluate program effectiveness, at least annually. This need coupled with the Board of Education's concern about the value of the programs encouraged the school administrative staff to develop broad objectives for evaluation that would be important to the success of all three programs. This inevitably led to skills, attitudes, and knowledges that students needed to be successful in a variety of occupations.

So, to complement the new vocational program efforts, Norwich sought support for the development of ways to assess important work skills of students. The Division of Vocational Education of the Connecticut State Department of Education saw promise in the idea and awarded a grant to develop and test an instrument to assess performance skills that are important in a variety of occupations.

The objectives to be achieved by the project were threefold:

> Prepare test exercises for the major categories of "skills generally useful in careers" that have been identified by the National Assessment of Educational Progress Project;
>
> Field test the exercises in Norwich programs of occupational study for practicality of test administration and relationships to needed work behaviors; and

Survey opinions of local employers, occupational instructors, teacher-trainers, and State Department of Education vocational consultants regarding the generalizability of the exercises to a broad range of occupations and their potential to measure on-the-job behaviors.

The period of the project was from December to June of the 1977-78 school year. The major portion of time was spent in the development of draft exercises that applied to a variety of vocational programs.

The remaining sections of this report present the methods used to carry through on the objectives of the project followed by an evaluation of the results and a copy of the assessment exercises developed.

Methods

Following approval of the project, ideas were solicited concerning the conduct of the proposed study. Consultants from the State Department of Education were visited to ascertain their knowledge of available research in the area. Selected staff of Norwich Community School, Teachers' Memorial and Kelly Junior High Schools were informed of the project possibilities and were requested to offer their suggestions. Educational materials were reviewed to ascertain instruments available for evaluating effectiveness of vocational programs. The initial inquiries were supportive of the directions proposed for the study and the review of educational materials did not disclose published studies which had already accomplished the intended purposes of the Norwich project.

Next, pertinent publications of the National Assessment of Educational Progress (NAEP) were reviewed. "Skills generally useful in careers" was part of both national assessments conducted in the area of careers and occupational development made during the seventies. The objectives established for these skills were judged to be an excellent base upon which basic work skill

exercises could be developed for the Norwich project. Since these objectives had been thoroughly researched, discussed, defined, and redefined by many prominent subject-matter specialists and lay people as well as NAEP staff, the objectives were accepted without change.

In addition to using NAEP objectives for skills generally useful in careers, selected released exercises which tested some of the desired work skills were also taken from NAEP so that some exercises would have national comparisons available for different age groups of students.

Following this, 31 draft exercises were prepared for the 47 statements of objectives published by NAEP. Some exercises consisted of only several items one page in length while others had many items taking more than several pages. Altogether, 110 pages of draft exercises were prepared.

Time limited the extent of field testing of the exercises in Norwich vocational programs. Those that were used were administered at the beginning and end of the program offerings. Instructors did not have a chance to review the complete package until after the close of the school year.

The completed package of draft exercises were assembled under their appropriate objectives with the objectives serving as a table of contents. A short narrative was prepared explaining the purposes and possible uses for the package and enough copies of these draft exercises were run off to accomplish the final procedures undertaken in the project.

Next, a questionnaire was designed to guide the critical review of the draft exercises by persons who had close contact with upper grade students or who saw them on their jobs at work after they had completed high school. The persons selected represented employers of high school graduates, occupational instructors, teacher trainers, and State Department of Education consultants. Interviews were set up to talk with each rater of the draft exercises about

the possible uses of the material at which time the draft exercises, questionnaire, and a return envelope all packaged in an expansion file pocket, were left with the rater to complete within his own time frame.

Returns were received from raters. Questionnaire responses were tabulated and analyzed, and a final evaluation report was prepared for the Norwich project.

Findings and Analysis

The findings and analysis of the study in terms of each objective are presented next.

The first objective sought to prepare the draft test exercises. A total of 31 exercises were developed for the 47 basic work skill objectives. Hence, the first objective was accomplished.

The second objective was to field test the exercises in Norwich vocational programs for practicality of test administration and relationship to needed work behaviors.

Three exercises were administered to students in the three programs in the middle and at the end of the school year:

Objective 8B: Know own characteristics relevant to career decisions (5 items)

Objective 8C: Plan for career development (7 items)

Objective 8D: Relating past and future schooling to occupations of interest (4 items)

Summary analyses were made of student responses to the first administration of the exercises and shared with instructors in those courses. Responses from the second administration of the exercises compared to the first had not been analyzed at the time of this reporting.

A discussion of the practicality of test administration and the relationship of specific exercises to needed work behaviors was not accomplished

in the short seven months period of the project. Hence, objective #2 was not achieved.

The third objective sought opinions of local employers, occupational instructors, teacher trainers, and State Department of Education vocational consultants regarding the generalizability of the exercises to a broad range of occupations and their potential to measure on-the-job behaviors.

A questionnaire was designed to elicit responses of the type required. Appointments were made to personally present the draft exercises and questionnaire to 19 persons representing the backgrounds discussed above. Each was requested to complete the questionnaire and return it in a stamped envelope which was provided.

Twelve completed questionnaires were received. The responses in terms of the background information and questions asked were as follows:

Your business, occupation, or profession:

Home economics teacher
Education consultant (2)
Special education teacher
Central office administrator
Vocational agriculture instructor
Teacher
Adult education director
Business education-distributive education teacher
Education
Auto body repair instructor
State department of education consultant

City and state where you work:

Central Village
Hartford (3)
Norwich (4)
Meriden
Storrs
Rockville
Uncasville

Contact with high school graduates:

XXX See them in their jobs at work
Employer of high school youth
XXXX Teach high school youth
X Teach teachers of high school youth
XXXX Education consultant

Viewpoint about preparing high school youth interested in employment upon graduation:

- High schools should prepare youth in specific job skills
- XXXXX High schools should prepare youth in generalized skills that can be transferred to a broad range of occupations
- XX XXXXX High schools should emphasize both of the above
- X Other viewpoint: High schools should prepare youth in generalized skills that are necessary for living and survival day to day

Comment alongside these goal areas if you feel any of the following are not generalizable skills in your estimation:

Numerical skills...(Essential, but I wonder if there is another way to say this more clearly)

Communication skills

Manual/perceptual skills

Information-processing skills

Problem solving and decision-making skills (again, important, but how would you say this so that a high school student could understand it more easily?)

Interpersonal skills

Employment-seeking skills

Career-improvement skills

Are the statement of objectives generally important to the job success of high school graduates?

- The objective statements need rethinking
- X The objectives are important, but some need revision
- XXXXX
- X XXXXX The objectives are important and well stated as far as they go

How generalizable are the work skill exercises to the range of occupations in which high school graduates will find employment?

- Assessment exercises are too specific
- X Some exercises are generalizable
- XXXXX
- X XXXXX Most exercises are generalizable

What potential do the work skill exercises have to measure "on-the-job" behaviors?

	The exercises really don't measure on-the-job behaviors
XX	Some of the exercises measure on-the-job behaviors
XXXXX XXXXX	Most of the exercises measure on-the-job behaviors

How do you judge assessment exercise readability?

	A number of exercises are more appropriate for younger students
X	A number of exercises are too difficult to read
XXXXX X XXXXX	Most 13 through 18 year olds should find most of the exercises interesting and easy enough to read

Rate the potential of the assessment exercises to serve each of the purposes for which they were developed:

High Potential	Average Potential	Low Potential	
8	4		Broaden the scope of specific occupational approaches
10	2		Assess generally useful work skills of students
8	4		Encourage occupational instructors to assess work skills often during coursework
7	5		Evaluate total class progress in work skills over some time period
8	3	1	Stimulate instructors to develop their own work skill exercise packets

Write-in comments:

(About whether the objectives are generally important to job success)

- Sometimes the objectives need to be specialized and more relevant to a specific career

(About generalizability of the work skill exercises)

- It would be interesting to compare assessment results of the college-bound to those of the employment-bound
- I believe the work skill exercises would provide valuable experiences which could be useful in a variety of jobs
- In my opinion, the success or failure of a student to perform some of these exercises will not affect the student's ability to seek employment, but I do feel that the exercises referred to are essential for the student's well being in every day life

- There must be efforts made to relate these work skill exercises directly to job experiences

- The directions and questions of item 3 of objective 1F-2 are not clear to me

(About the potential of the exercises to measure on-the-job behavior)

- I feel that by completing the work skill exercises and applying what has been learned will improve performance on the job
- Some of the exercises can be found in practical on-the-job operations
- Some exercises do measure some of the behaviors found on-the-job, but it seems to me that there would be a truer way to measure these behaviors. They are just too general
- ...the success or failure of a student to perform some of these exercises will not affect the student's ability to seek employment

- I don't like the word behavior - skills or abilities would be more to my liking. Some of the more technical skills i.e. math skills may, but the other objectives are not on-the-job
- It is very difficult to try and measure on-the-job behaviors because of the variables that are related to the specific job at a particular time. The experiences are behavioral in their approach to understanding human relations on-the-job

(About the readability of the assessment exercises)

- Most of the exercises were very well thought out. Many should be very interesting particularly to high school students
- I did find that a number of the exercises would need a gread deal of introduction to make them relevant to the student. Also, some of the terminology used, although not difficult, needs interpretation to the student. Example: Objective 2D-1

- I don't feel that changes should be made- but you might consider a revised edition for students reading below the 6th grade level
- How will the instructors know if each of successful performance is due to poorly developed reading skills or lack of the basic work skills?
- Some younger students may have a difficult time comprehending some of the discussion in the exercises. Example: Objective 4A-3

(About any comments you feel would improve the exercise package)

- I am really impressed with the exercise package. I cannot recall having this kind of education appraisal in the school system I attended. If every high school student could meet the objectives stated in the exercises, they would certainly be more successful in the world they must live and work in

- How do you integrate the material in these exercises with the other academic or vocational programs in the school system?
- Should there not be an assessment of students' reading skills to determine whether or not they will be able to understand the exercises?

- The information is clear, logically presented and understandable. There's a great amount of work in putting all this information together which should benefit both student and instructor
- I think your work skills assessment project has been a very worth while experience and I believe the results can help both teachers and students
- This exercise package is very informative and enlightening. It could be expanded to include more of the building trades. This is a very good example for teachers to use in setting up their own package for their occupational field
- This is an excellent approach to the question in generalizable work skills and its importance in vocational and career education. Another aspect might be to review the literature concerning the employer's list of needed skills
- I would be interested in using this material with adults. I feel that it is excellent
- The educational jargon used to introduce the package should be abbreviated and simplified
- I feel that instructors may need to modify or add to these exercises. This would be needed if the student population in question were low in academic ability
- After 9 years in education, I'm a bit suspicious of education jargon. Too many times we educators use too many words. I evaluated these materials in terms of the students I have. Many would be turned off by the exercises for objective 8 if presented as is. It's too much reading and they aren't sufficiently motivated to wade through it all by themselves. I work with seniors who "know everything" they need to know. I teach a course called "Singles Survival" and will be able to use many of your exercises to clarify my own course objectives
- A broader section on the subject of human relations could be included that would stress: 1) the personality traits employer's expect; 2) an understanding of the employer-employee relationship; 3) an appreciation of the labor-management relationship; and 4) the difference between human relations in structured and instructured settings

Conclusions

The conclusions based on the findings and analysis of the previous section of this report are as follows:

1. A total of 31 draft exercises were prepared for 47 objectives of work skills considered useful in a variety of occupations and careers. This was considered an accomplishment of the first objective of the project.

2. Field testing the assessment exercises in Norwich vocational programs to determine the practicality of test administration and exercise relationship to needed work behaviors was not accomplished except with three exercises. This second objective of the project was limited by the amount of time spent refining draft exercises to represent as great a breadth as possible of vocationally based school offerings.

3. Opinions of occupational instructors, teacher trainers, and State Department of Education vocational consultants who reviewed a set of the work skill exercises rated:

   - the stated objectives as important to the job success of high school graduates;
   - the work skill exercises as generalizable to a broad range of occupations;
   - most work skill exercises as measuring on-the-job behaviors;
   - readability of the exercises as appropriate for most 13 through 18 year olds; and
   - the potential of the work skill exercises to accomplish five listed purposes about equally well with slightly higher ratings for the stated purpose of using the exercise package to assess generally useful work skills of students.

   Even though specific ratings for each of the above was high for this the third objective of the project, two of the categories of responses brought in more than a few write-in comments which should be studied in an effort to improve the basic work skill exercises. The expressed concerns were:

   - the difficulty in attempting to measure on-the-job behavior in a very general way through the exercises, and
   - the extent that some junior high and high school students may have difficulty with the reading level of some exercises.

The most serious short comings in attempting to interpret questionnaire results stem from the lack of any returns from employers of high school youth and the response from only one of the teacher trainers in the vocational field.

All of the above considered, it is concluded that opinions of persons

knowledgeable about working high school graduates generally rate the basic work skill exercises as a promising instrument to help assess important objectives of vocational offerings.

Recommendations

The work completed to date in developing an instrument to measure work skills having wide application in occupations and careers shows a promising start. Much more needs to be accomplished with this project to strengthen assessment exercises and make them more useful to instructors of vocational offerings for program evaluation purposes.

It is recommended that basic work skill exercises be strengthened through the following additional efforts:

- Expand the application of the exercises to a greater number of vocational areas
- Check further on the readability of each exercise
- Survey the opinions of employers of high school graduates and teacher trainers in vocational fields concerning the instrument's needs
- Review the literature concerning the employer's listing of most needed skills of high school graduates
- Determine the relative "hardness or easiness" of each exercise item
- Review the items for value to various subgroups of 13 and 17 year olds (exceptional children, Spanish speaking, educationally disadvantaged, etc.)

It is recommended that basic work skills exercises be made more useful to instructors of vocational offerings for evaluation purposes through some of the following approaches:

- Encourage a number of instructors of vocational offerings to administer selected exercises so that state norms for 13 and 17 year old vocational students can be cited along with local results
- Develop and write up evaluations based on the use of selected exercises related to course offerings in a variety of vocational areas
- Describe ways basic work skill exercises can be integrated into course work

- Request opportunities to present the possibilities of basic work skill exercises as part of regularly scheduled meetings of vocational groups during the next school year
- Work out a means to package the exercises for ease of handling, storing and zeroxing by users and disseminate the product to school districts supporting P.L. 94-482 programs

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ASSESSMENT EXERCISES FOR WORK SKILL GOAL AREAS AND OBJECTIVES GENERALLY USEFUL IN A BROAD RANGE OF OCCUPATIONS AND CAREERS

Contents

Application of Assessment Exercises

Background and purpose
Broader approach to occupational training
Assessing generally useful work skills
Evaluating group progress in work skills
Developing additional exercises
Summary

Work Skill Goal Areas and Objectives

1. Numerical skills

✓ A. Know the application of numerical skills in various careers
✓ B. Know how to perform basic numerical calculations
C. Know metric measurement and how to perform simple calculations using metric measurements
✓ D. Read numerical values from graphs, charts, and tables and understand their use
✓ E. Interpret statistical data from charts, tables, and graphs
✓ F. Understand and calculate percentages, ratios, and proportions
✓ G. Compare numerical values to determine extremes, central characteristics and trends
H. Convert measurements into equivalent quantities on a different scale
I. Estimate relative magnitude in numerical terms
J. Perform calculations for jobs common to specific age levels
K. Use graphs, charts, and tables in making graphic representations of numerical quantities.

2. Communication skills

✓ A. Recognize communication skills needed to become successful in careers
✓ B. Listen to and understand spoken and visual instructions, directions, and information
C. Read and follow written instructions, directions, and information

- ✓ D. Read and understand pictorial, graphic, and symbolic information
- ✓ E. Give directions, explain, describe, and demonstrate clearly
- F. Give organized and informative oral presentations
- ✓ G. Write organized, legible, and articulate reports and summaries
- ✓ H. Prepare concise letters, messages, want ads, and telegrams.

3. Manual/perceptual skills

- ✓ A. Identify and use common tools, fasteners, and equipment to perform simple household or job tasks
- ✓ B. Read and understand gauges, scales, and other common measurement instruments
- ✓ C. Construct, fabricate, and assemble using appropriate tools, equipment, and materials
- ✓ D. Repair and maintain items common in households and occupations
- ✓ E. Plan and develop visual presentations
- ✓ F. Distinguish between adequate and inadequate construction and repairs.

4. Information-processing, problem-solving and decision-making skills

- ✓ A. Know specific procedures and principles used in information processing, problem solving and decision making
- ✓ B. Analyze information and define problems
- ✓ C. Collect and organize data
- D. Identify possible solutions and alternatives
- ✓ E. Make decisions or choose alternatives in terms of relevant criteria
- F. Implement plans
- G. Based on feedback, evaluate and modify plans
- H. Learn and apply procedures and principles that are basic to further learning
- I. Devise plans, new ideas, and better ways of doing things.

5. Interpersonal skills

✓ A. Know the importance of interpersonal skills
✓ B. Work and interact effectively with peers, teachers, and supervisors
C. Demonstrate effective leadership.

6. Employment-seeking skills

✓ A. Know where to find information regarding job openings
✓ B. Use appropriate procedures in applying for a job or position.

7. Career-improvement skills

A. Know that most careers require the continuous attainment of new knowledge and abilities
B. Know methods of gaining knowledge and abilities necessary to improve existing career and occupational skills
C. Engage in activities that improve skills within a planned career.

8. Integrating personal characteristics with knowledge of careers and occupations

✓ A. Relate own personal characteristics to occupational requirements
✓ B. Know own characteristics relevant to career decisions
✓ C. Plan for career development
✓ D. Relating past and future schooling to occupations of interest
✓ E. Know the future outlook of selected occupations in Connecticut.

(✓) Indicates those objectives for which test exercises have been included.

ASSESSMENT EXERCISES FOR WORK SKILL GOAL AREAS AND OBJECTIVES GENERALLY USEFUL IN A BROAD RANGE OF OCCUPATIONS AND CAREERS

Application of Assessment Exercises

Background and purpose

The Division of Vocational Education of the Connecticut State Department of Education awarded a research grant to the Norwich school district to develop and test an instrument to assess performance skills that are important in a variety of occupations. The period of the grant was from December to June of the 1977-78 school year.

The instrument took the form of assessment exercises. These were developed from objectives in the area of work skills for career and occupational development which were published by the National Assessment of Educational Progress, a project of the Education Commission of the States.

The initial field testing of assessment exercises was undertaken in three newly started vocational education programs in Norwich, Connecticut. But since the period of the project was short and the number of exercise packets numerous, only a small number of the exercise packets were tried. What was really tested was the idea of using these short exercise packets at the beginning and end of a program year.

At the close of the school year, the exercise packets received another kind of field testing. Copies of the instruments and an accompanying questionnaire were put in the hands of employers of high school graduates, instructors of career and occupational courses, high education personnel and education consultants. They made judgments about the generalizability of the exercises to assess a broad range of occupations and their potential to measure on-the-job behaviors.

The purpose of the research and the resultant exercise packets was to excite interest of vocational, industrial, and consumer instructional staff in

-- broadening the scope of occupational training,
-- assessing generally useful work skills of students,
-- evaluating progress in work skills over some time period, and
-- developing "taylor-made" work skill exercises uniquely related to specific program offerings.

Broader approaches to occupational training

The areas toward which work skill exercises can be directed is unlimited. Over 1000 programs alone of trade, industrial, occupational, and consumer oriented efforts are funded yearly through the Vocational Division of the State Department of Education. Additionally, there are the offerings of 19 regional vocational-technical schools as well as over 60 trade and occupational programs offered by the private sector in the state. There is a tendency in some of these program offerings to prepare students too narrowly for the employment that will be available to them when they graduate from high school. Even if all students can be placed following special skill training, there is still a need to prepare youth more broadly for a fluctuating job market. Besides, you have some employers preferring that the specific skill training be left to them and encouraging the schools to better youths' skill development in reading, mathematics and communication skills. At any rate, the scope of objectives provided in this compilation of exercises provides excellent directions toward which occupational and career-type programs can branch out. It is recommended that instructional staff review the objectives from which exercises were developed in the table of contents to determine specific application to their coursework.

Assessing generally useful work skills

It is not uncommon to find generally useful work skills integrated in school subject offerings, but not being formally assessed. If it doesn't make any difference to the instructor whether listening, speaking, or problem solving skills for example are highly developed or not, than it's not going to be regarded very highly by many of the students. School skills that are important must be recognized, stressed, and rewarded.

Assessing generally useful work skills of students in a class offering can take many forms. Exercise items can be used to introduce a new area of work in which the particular objective being tested is very important. Test exercises from more than several areas of objectives considered to be especially relevant to the occupational course being taught could be spaced out and administered over the course of the program.

Another approach might be to analyze the skills that a particular class brings to a program offering and select assessment exercises of objectives considered to be most relevant to their need to be successful and get the most out of the coursework. Still another possibility is to use the test exercises as a basis for group or individual counseling as coursework proceeds.

Evaluating class progress in work skills

Student exercise responses can be summed up in group terms. This is a more precise and meaningful way to size up a program's effectiveness for school staff, parents, or board members. It is almost a necessity in reporting evaluation results for state and federally supported programs.

Progress towards program objectives can be determined in terms of standardized instruments, inventories, and procedures or in terms of teacher-made tests, observations, and recordings. Results from any or all of these means found in the exercise packets can be summarized in group form.

A common means of presenting group results would be to determine the average percentage of assessment exercises answered correctly by all of the students of a class for each exercise item. If one administers the same assessment exercises several times during the program, the change in responses from the first to the second testing can be presented. Another dimension can be added if exercise results for other similar youth were available, such as a national or state sample of students of the same age. Under these circumstances, group comparisons can be made and presented. An example of this type of evaluation is presented in the Attachments to this compilation of assessment exercises.

Group averages cannot be obtained for some types of exercises. Where the exercises are intended to find out such things as the depth of thought given by a student concerning his preparation for a future job, summation of results would have to take some other form. For example, one could analyze how realistic or consistent student responses to the exercises were. Again, if the exercises were given at the beginning and end of course offerings, one might be able to quantify any changes in the number of realistic or consistent responses that were given on successive administrations of the exercises. An example of this type summation for a group of students is also shown in the Attachments.

Many other ways to analyze class or course results for exercise packets might be discussed. To mention one more, if the group of students whose results needed summarizing numbered 20 or more, a statistical t test could be applied to the results of students to determine whether change beyond chance variation occurred.

Summing up results for a program in terms of the combined participants has other values. Almost all of the state and federally funded vocational efforts require program evaluation. Where these developed assessment exercises are relevant to a program's objective, they can make a major contribution towards evaluating program effectiveness.

Developing additional exercises

It is difficult for a compilation of this scope to be uniquely related to the variety of occupational, industrial, and consumer programs offered in the state. It is therefore suggested that instructional staff add to exercise packets as well as develop new ones so that work skills generally useful in occupations can be more closely associated with the content of the coursework. It would be especially valuable to have some of the exercise examples reflect the area towards which the program is directed.

There are 31 packets of exercises developed for 47 objectives on the pages to follow. Identification of each page has been designed so that new pages can be inserted without disordering existing pagination. Also, pages have been perforated to fit in a loose-leaf notebook.

Summary

It is hoped that this compilation of exercises: encourages instructional staff to direct more attention to skills generally useful in a variety of occupations and careers; makes it possible to more easily assess and record data consistently concerning these work skills; and stimulate the development of "instructor-made" tests to uniquely serve the needs of Connecticut's vocational programs.

Name_____ Grade____ Date_____ Instructor_____

Objective: Know the applications of numerical skills in various careers.

Administrative Mode: The instructor should administer these questions individually to each student reading them aloud and recording responses for the student.

1. Name two or three careers which require little or no numerical skills.

   Response: _____

2. In the following careers, how would an individual use numerical skills?

   a) Wall paper hanger _____

   b) Service station attendant _____

   c) Short order cook _____

   d) Carpenter _____

   e) Farmer _____

   f) Seamstress _____

3. Which of the following careers would require the least knowledge of numerical skills?

   a) Drill press operator _____

   b) Cashier in a food store _____

   c) Cashier at a self service gasoline station _____

   d) Television repairman _____

4. Which of the following careers would require an advanced knowledge of numerical skills? What type of numerical skills would be required in each career?

   a) Machinist _____

   b) Electrical technician _____

   c) Chemical engineer _____

   d) Chemist _____

   e) Accountant _____

   f) Tool and die maker _____

   g) Pattern maker _____

5. What career would you like to enter after graduating from school?

   Response: _____

   Describe the numerical skills required to perform with some degree of proficiency in this career field.

   Response:

Name_____ Grade____ Date_____ Instructor_____

Objective: Know how to perform basic numerical calculations.

Administrative Mode: Have student solve all the problems in items 1-7 on their own.

1. Solve the following whole number problems:

a) $\begin{array}{r} 32 \\ +43 \\ \hline \end{array}$ b) $\begin{array}{r} 37 \\ +47 \\ \hline \end{array}$ c) $\begin{array}{r} 147 \\ +66 \\ \hline \end{array}$ d) $\begin{array}{r} 112 \\ 222 \\ +333 \\ \hline \end{array}$

e) $\begin{array}{r} 333 \\ 444 \\ +115 \\ \hline \end{array}$ f) $\begin{array}{r} 323 \\ 446 \\ +152 \\ \hline \end{array}$ g) $\begin{array}{r} 434 \\ 536 \\ +256 \\ \hline \end{array}$

2. Solve the following whole number problems:

a) $\begin{array}{r} 43 \\ -21 \\ \hline \end{array}$ b) $\begin{array}{r} 48 \\ -29 \\ \hline \end{array}$ c) $\begin{array}{r} 123 \\ -34 \\ \hline \end{array}$ d) $\begin{array}{r} 5676 \\ -898 \\ \hline \end{array}$

3. Solve the following whole numbers problems:

a) $\begin{array}{r} 31 \\ \times 22 \\ \hline \end{array}$ b) $\begin{array}{r} 21 \\ \times 46 \\ \hline \end{array}$ c) $\begin{array}{r} 169 \\ \times 64 \\ \hline \end{array}$ d) $\begin{array}{r} 282 \\ \times 174 \\ \hline \end{array}$

Solve the following whole number problems:

a) $13\overline{)3,969}$ b) $62\overline{)8,670}$ c) $92\overline{)9,660}$

d) $542\overline{)490,960}$

4. Solve the following problems and write answer in best form:

a) $\frac{1}{6} + \frac{5}{6}$

b) $\frac{1}{2} + \frac{1}{2}$

c) $\frac{3}{10} + \frac{9}{10}$

d) $\frac{1}{8} + \frac{5}{16}$

e) $\frac{3}{4} + \frac{3}{8}$

f) $\frac{9}{10} - \frac{3}{11}$

g) $\frac{9}{11} - \frac{3}{11}$

h) $\frac{15}{16} \quad \frac{9}{16}$

i) $\frac{5}{8} - \frac{5}{16}$

j) $\frac{3}{4} - \frac{3}{8}$

5. Solve the following problems:

a) $15.8 + 3.9$

b) $45.0 - 2.5$

c) 8.650×34

d) $35\overline{)42.35}$

6. Change to 2 place decimals, give any remainder in a fraction:

a) $\frac{3}{4}$

b) $\frac{2}{7}$

c) $\frac{16}{24}$

7. Solve the following problems:

a) $2 \times 9\frac{1}{2} =$

b) $2 \times 8\frac{2}{5} =$

c) $8\frac{1}{2} \div \frac{3}{4} =$

d) $7\frac{1}{5} \div \frac{3}{5} =$

Name_____ Grade____ Date_____ Instructor_____

Objective: Read numerical values from graphs, charts and tables and understand their use.

Administrative Mode: Have student answer all the questions on their own.

1. Using the following tax table, figure the sales tax on the following amounts:

a) $ 9.75 _____ c) $18.85 _____

b) $12.40 _____ d) $21.20 _____

Sale		Tax	Sale		Tax	Sale		Tax
0.00—	.07	.00	9.06—	9.21	.64	18.08—	18.21	1.27
.08—	.21	.01	9.22—	9.35	.65	18.22—	18.35	1.28
.22—	.35	.02	9.36—	9.49	.66	18.36—	18.49	1.29
.36—	.49	.03	9.50—	9.64	.67	18.50—	18.64	1.30
.50—	.64	.04	9.65—	9.78	.68	18.65—	18.78	1.31
.65—	.78	.05	9.79—	9.92	.69	18.79—	18.92	1.32
.79—	.92	.06	9.93—	10.07	.70	18.93—	19.07	1.33
.93—	1.07	.07						
1.08—	1.21	.08	10.08—	10.21	.71	19.08—	19.21	1.34
1.22—	1.35	.09	10.22—	10.35	.72	19.22—	19.35	1.35
1.36—	1.49	.10	10.36—	10.49	.73	19.36—	19.49	1.36
1.50—	1.64	.11	10.50—	10.64	.74	19.50—	19.64	1.37
1.65—	1.78	.12	10.65—	10.78	.75	19.65—	19.78	1.38
1.79—	1.92	.13	10.79—	10.92	.76	19.79—	19.92	1.39
1.93—	2.07	.14	10.93—	11.07	.77	19.93—	20.07	1.40
2.08—	2.21	.15	11.08—	11.21	.78	20.08—	20.21	1.41
2.22—	2.35	.16	11.22—	11.35	.79	20.22—	20.35	1.42
2.36—	2.49	.17	11.36—	11.49	.80	20.36—	20.49	1.43
2.50—	2.64	.18	11.50—	11.64	.81	20.50—	20.64	1.44
2.65—	2.78	.19	11.65—	11.78	.82	20.65—	20.78	1.45
2.79—	2.92	.20	11.79—	11.92	.83	20.79—	20.92	1.46
2.93—	3.07	.21	11.93—	12.07	.84	20.93—	21.07	1.47
3.08—	3.21	.22	12.08—	12.21	.85	21.08—	21.21	1.48
3.22—	3.35	.23	12.22—	12.35	.86	21.22—	21.35	1.49
3.36—	3.49	.24	12.36—	12.49	.87	21.36—	21.49	1.50
3.50—	3.64	.25	12.50—	12.64	.88	21.50—	21.64	1.51
3.65—	3.78	.26	12.65—	12.78	.89	21.65—	21.78	1.52
3.79—	3.92	.27	12.79—	12.92	.90	21.79—	21.92	1.53
3.93—	4.07	.28	12.93—	13.07	91	21.93—	22.07	1.54

2. Use the following stock information to list those stocks which went down 1/8 and 7/8 and those that went up 1/4 and 1-5/8:

a) down 1/8 _____ c) up 1/4 _____

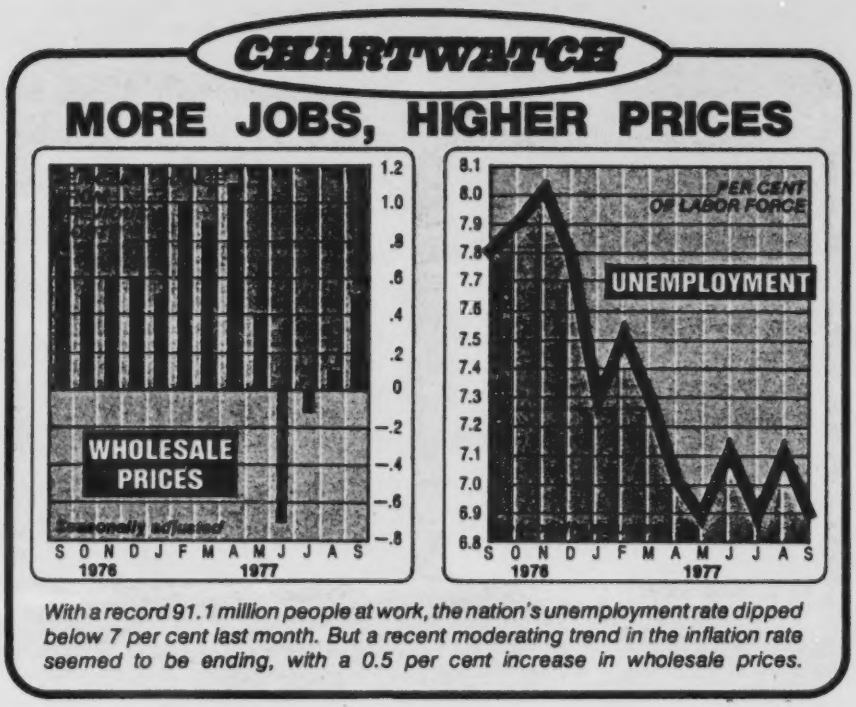
b) up 1-5/8 _____ d) down 1/8 _____

Yearly High	Yearly Low			Sales PE	Sales hds	High	Low	Last	Net Chg
48⅝	36½	Md Cup	.74	9	131	37⅝	36	37⅝+	⅝
23½	19⅝	Masco	.52	11	494	22	20	22 +	1⅛
20⅝	14⅞	Massmt	.68	7	472	19¼	17⅝	19 +	1½
16	13	MasMA	1.28e	11	189	14½	13⅝	14	
29⅝	8½	MassyF			1270	11⅛	10¼	11 +	⅛
18	16	MatCo	1.64		124	17¼	16⅞	17 —	⅛
13⅛	10⅝	MatInc	1.01e		184	11⅛	d10⅝	11	
37¼	22½	MatuaE	.36e	10	173	37⅛	36⅝	36⅝—	⅛
11⅞	7	Mattel	.07e	9	5149	11⅛	9⅞	11¼+	1⅛
27¾	20⅝	MayDS	1.28	7	510	24⅛	23¼	24 +	⅛
26	19	MayerO	.90	11	x18	23¼	22⅝	23⅛+	⅛
5	2¾	MayrJW		6	17	4⅛	4	4⅛—	⅛
32	25	Mayts	1.60e	11	257	27¼	26⅛	27 +	⅛
31½	21½	McDermt	1	5	4841	25	22⅝	24⅞+	⅛
35¾	29	McDrsf	2.20		779	30¼	29	30⅛+	⅛
38⅝	28¾	McDrsf	2.60		3336	29⅛	28⅞	29	
58⅞	43⅞	McDnld	.36	16	1623	56⅜	52½	54⅜+	1⅝
35	19⅝	McDonO	.60	10	3468	34¾	33⅛	34⅜+	1½
27¾	18⅛	McDonn	1.20	6	42	25½	24⅞	25½+	½
29⅝	23⅛	McGEd	1.60	7	191	27⅜	26	26⅛—	⅞
24⅝	16⅝	McGrH	1	10	1351	23¾	22	23⅝	
48	27	McGHof	1.20		4	33	37	37 +	1
37⅝	17¾	McIntyr	1		x1120	22	19⅝	22 +	2⅜
19⅝	14⅛	McKee	.1	8	119	18½	18⅛	18⅛—	⅛
22⅝	17⅛	McLean	.52	7	109	18¼	d17⅛	18⅛+	½
16⅛	8¾	McLoul			125	9⅞	9½	9⅝—	⅛
15¾	10⅝	McNeil	.80	9	127	14	13⅝	14	
23⅞	16¼	Mead	1.12	5	727	21⅛	20⅛	21½+	1⅛
34	16¼	Measrx	.40	16	1539	u34	29	33¼+	3⅞
17½	11¼	Mednco	.40	10	297	u17½	16⅞	17½+	⅛
26⅜	16⅜	Medtrn	.48	11	1147	25¼	24⅜	25¼+	⅛
44⅛	25¾	Meduse	.2	10	208	43	42¼	43½+	⅛
33¾	23¼	Melville	1.16	10	1445	29¼	28⅝	29½+	1⅛
49⅝	24	Memorex		8	1796	40¾	37½	40½	
42¼	29⅛	MercStr	.80	6	134	32½	32	32 —	½
29¼	24¾	MerTx	1.32	7	111	29½	28½	29 +	½
63	47⅜	Merck	1.76	15	2536	59¼	58⅜	59⅛+	3⅛

3. Use the information presented in "Chartwatch" to write a sentence describing:

   a) The September 1976 unemployment rate with September 1977.

   b) The September 1977 wholesale price change from the previous month.



4. Use the "Screw and Screw Hole Chart" to complete the following questions:

   a) What size "body drill" would you use for a #8 screw?

   b) What "drill size" would you use to drill a "pilot hole" in a piece of hard wood for the #8 screw?

Screw and Screw Hole Chart

SCREW AND SCREW HOLE CHART

Gauge No. Wire Size	*Counter-bore for head Drill Size*	*Body Drill Size*	*Pilot or Lead Hole Drill Size*	
			Hard Wood	*Soft Wood*
0	.119(⅛)	1/16	3/64	
1	.146(⅝₄)	5/64	1/16	
2	1/4	3/32	1/16	3/64
3	1/4	7/64	1/16	3/64
4	1/4	1/8	3/32	5/64
5	5/16	1/8	3/32	5/64
6	5/16	9/64	3/32	5/64
7	3/8	5/32	1/8	3/32
8	3/8	11/64	1/8	3/32
9	3/8	3/16	1/8	9/64
10	1/2	3/16	5/32	9/64
12	1/2	7/32	3/16	9/64
14	1/2	1/4	3/16	11/64
16	9/16	9/32	15/64	13/64
18	5/8	5/16	17/64	15/64
20	.650(11/16)	11/32	19/64	17/64
24	.756(¾)	3/8	21/64	19/64

5. Ideal-weight charts have been developed by persons in the health field based on the sex and height of a person. Use the chart showing these relationships to determine whether the following persons are underweight, average, or overweight.

Age and Sex	Height	Weight	Underweight, Average, or Overweight
14 year old girl	5 feet, 5 inches tall	115 pounds	
21 year old woman	5 feet, 11 inches tall	158 pounds	
17 year old boy	5 feet, 9½ inches tall	175 pounds	

Weights of Persons 14 to 21 Years Old

Height (without shoes)	Weight (without clothing)		
	under	Average	over
Men	Pounds	Pounds	Pounds
5 feet 3 inches	118	129	141
5 feet 4 inches	122	133	145
5 feet 5 inches	126	137	149
5 feet 6 inches	130	142	155
5 feet 7 inches	134	147	161
5 feet 8 inches	139	151	166
5 feet 9 inches	143	155	170
5 feet 10 inches	147	159	174
5 feet 11 inches	150	163	178
6 feet	154	167	183
6 feet 1 inch	158	171	188
6 feet 2 inches	162	175	192
6 feet 3 inches	165	178	195
Women			
5 feet	100	109	118
5 feet 1 inch	104	112	121
5 feet 2 inches	107	115	125
5 feet 3 inches	110	118	128
5 feet 4 inches	113	122	132
5 feet 5 inches	116	125	135
5 feet 6 inches	120	129	139
5 feet 7 inches	123	132	142
5 feet 8 inches	126	136	146
5 feet 9 inches	130	140	151
5 feet 10 inches	133	144	156
5 feet 11 inches	137	148	161
6 feet	141	152	166

Name_____ Grade____ Date_____ Instructor_____

Objective: Interpret statistical data from charts, tables and graphs.

Administrative Mode: Have student answer questions individually.

1. Calorie Counting: Using a calorie book, look up the following foods and write the number of calories in the blank spaces.

Food	Calories
1 large baked apple	_____
2 strips fried bacon	_____
Butter, 1 tablespoon	_____
Turnip greens, 1 cup	_____
Milk, whole, one cup	_____
Biscuit, 1 medium	_____
Peanut butter sandwich (look under sandwich)	_____
Hamburger, regular (look under Beef)	_____
Dried chipped beef (look under Beef)	_____

---

a) Using the number of calories you have written down in the blanks above, find out how many calories you will have with the following:

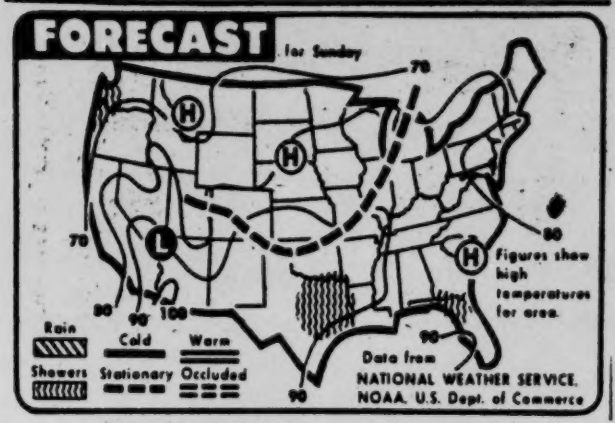
1 hamburger	_____	Peanut butter sandwich	_____
1 baked apple	_____	2 cups milk	_____
		1 baked apple	_____
Total	_____	Total	_____

b) Do the following exercise: Use a calorie book to find the calorie count. Add columns to find out how many calories in all.

Soup, beef	_____	Spanish rice	_____	Bacon, 2 slices	_____
Milk, 1 cup	_____	Ham, baked	_____	Eggs, 2 fried	_____
Total	_____	Total	_____	Total	_____

2. Use the following "Weather Forecast" and answer questions a-d:

The Weather



Forecast

Today sunny and warm. High temperature in the mid 80s. Fair and cool tonight. Low temperature in the 50s. Monday, sunny and hot. High temperatures in the 90s. Chance of rain near zero today and tonight.

Temperature Summary for June 10, 1978.

	8 a.m.	2 p.m.	8 p.m.
Temp. (deg. F)	60	72	71
Rel. Humidity (%)	72	35	44
Bar. Pres. at S.L.	30.12	30.15	30.13

Based on data to 8 p.m.: high 77 at 4:15 p.m.; low 54 at 5:40 a.m.; mean 66, normal 64; degree days 0. High year ago, 64; low 53.
Record high this date 97 in 1974.
Record low this date 38 in 1957.
Highest Temp. since Jan. 1, 93.
Lowest Temp. since Jan. 1, -3.
Accumulated departure from normal this month, through June 8, +22.

Precipitation Summary

To 8 p.m., 0. This month through June 9, 2.21 inches.
Normal this month, 3.53 inches. Total from Jan. 1 through June 7, 22.99 inches. For same period last year 22.72 inches.
Conn. River stage at 8 a.m. 7.6 feet.

Tides, June 11, 1978

	High			Low
At New London (State Pier)				
	1:32 am	2:21 pm	8:32 am	8:54 pm
At Saybrook (Saybrook Jetty)				
	2:42 am	3:31 pm	9:17 am	9:39 pm
At New Haven (City Dock)				
	3:23 am	3:55 pm	9:41 am	10:03 pm

Today's Projected Highs

Atlanta	84	Los Angeles	73
Boston	74	Miami	87
Chicago	88	Minneapolis	83
Cleveland	85	New Orleans	89
Dallas	93	New York City	77
Denver	83	Phoenix	101
Duluth	78	San Francisco	68
Houston	91	Seattle	65
Jacksonville	87	St. Louis	91
Kansas City	91	Washington	82

Skies

Sunday, June 11

Sunset today 8:25 p.m.
Sunrise Monday 5:15 a.m.
Moonset Monday 12:09 a.m.

The star Regulus and Mars and Saturn are a little north of the moon tonight. Regulus is nearest the moon and Mars will pass to the east of that star Monday. (Saturn will pass to the east of Regulus next month.)

Local Pollution Forecast for Today

Good | Moderate | Unhealthful | Very Unhealthful | Hazardous

a) What sections of the country will have rain today?

b) What was the record high for this date?

c) High and low tide at Saybrook will be at what time?

d) What is the local pollution forecast for today?

RISING TIDE

Imports in millions of dollars

	1965	1970	1976
Passenger cars	$581	$1,913	$5,451
Steel and iron	1,140	1,952	3,809
Clothing	541	1,269	3,634
Shoes	160	629	1,686
Television sets	60	315	833
Photographic equipment	57	115	340

Source: Commerce Department

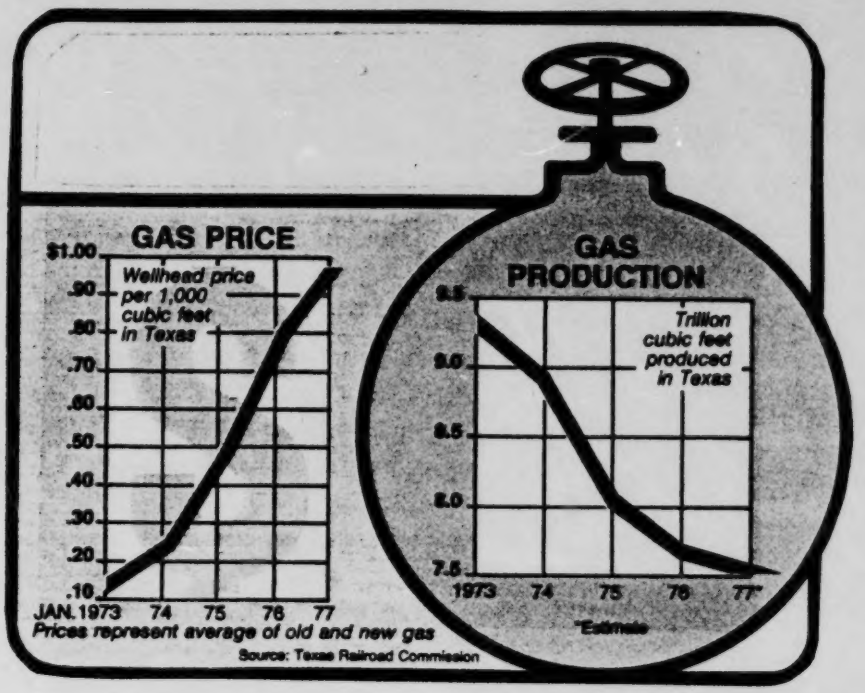
3. Use the chart above to answer the following questions:

   a) How much was spent for clothing imports in the United States in 1970? _____

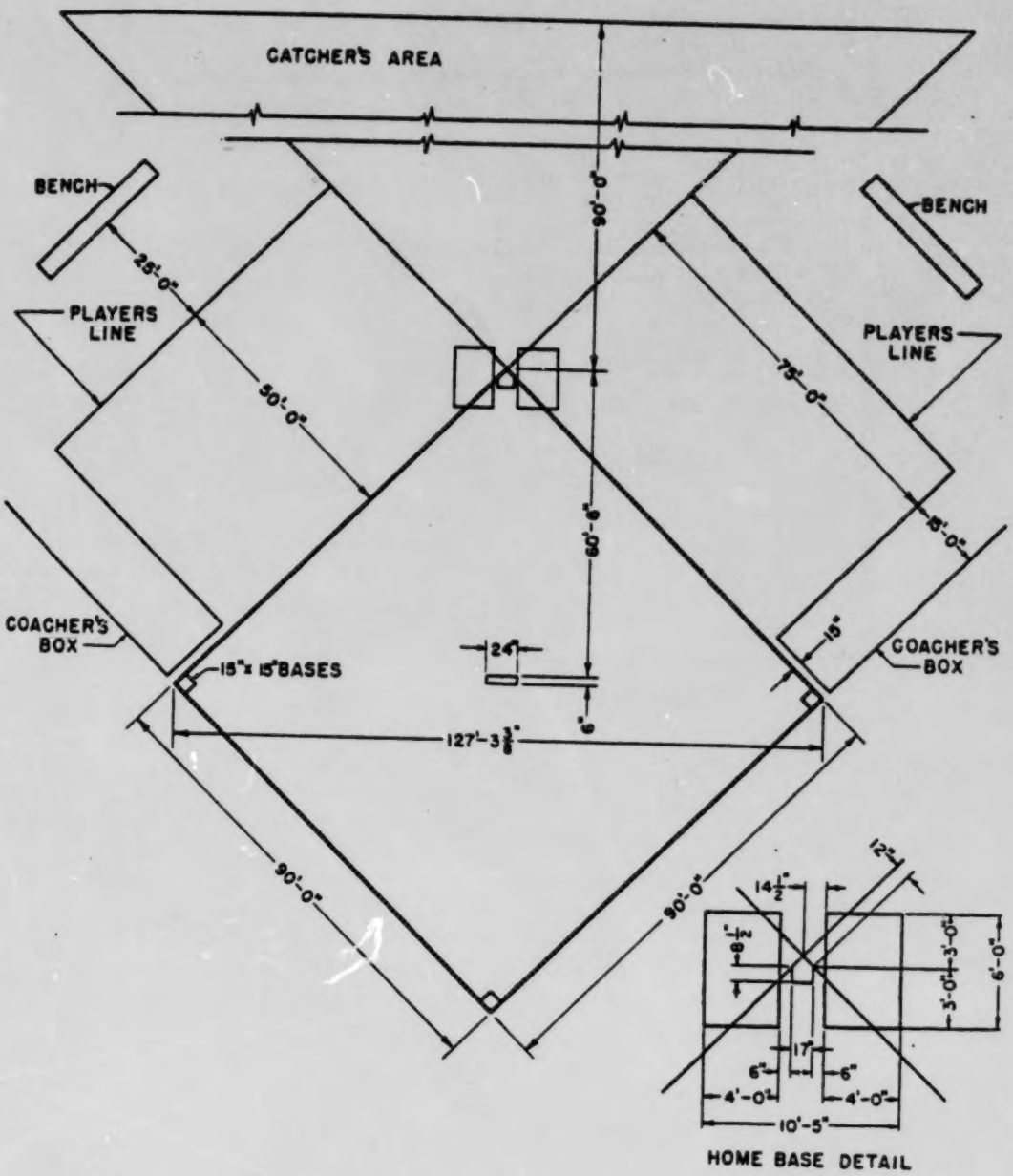
   b) How much greater was the expenditure for passenger car imports in 1976 than in 1965? _____

   c) Was there a reduction in imports for any of the products shown over the years listed? _____

4. Use the following chart and explain what has happened to gas prices and production in Texas. Be specific about the units, quantities and items in your description.



5. Use the drawing of a baseball diamond and answer the following questions?



a) What is the size of the batter's box? _____

b) What is the distance from home plate to the pitcher's mound?_____

c) What is the distance from home plate to the coache's box?_____

Name_____ Grade____ Date_____ Instructor_____

Objective: Understand and calculate percentages, ratios and proportions.

Administrative Mode: The instructor should have students respond to all questions on their own.

1. Increase the Orange and Lime Juice recipe to serve 16 people.

Orange and Lime Juice	4 servings	16 servings
Combine in a pitcher:		
2 cups of orange juice		_____ orange juice
1 tablespoon lime juice or 2 tablespoons lemon juice		_____ lime juice
1/8 teaspoon salt		_____ salt
1/2 cup cracked ice		_____ cracked ice

2. If the local automotive distributor paid the following for each of the listed items, how much must he sell each item to make a 20% profit?

   a) Spark plug @ $0.52 _____

   b) Oil filter @ $1.25 _____

   c) Tire @ $30.25 _____

3. What percentage of the regular new price are you paying for the 3/8" vsr drill according to the advertisement below? _____%

Reconditioned Power Tool Sale

HOME PRODUCTS		Regular New Price	Reconditioned Sale Price
DRILLS			
4100R	3/8" drill	15.99	8.99
4130R	3/8" vs drill	18.88	12.99
4150R	3/8" vsr drill	27.99	16.99
4200R	1/2" drill	24.99	14.99
JIG SAWS			
4300R	1sp. jig saw	15.99	8.99
4310R	2sp. jig saw	18.88	12.99
4320R	vs jig saw	27.99	16.99

4. In any metallic conductor, the current (amperage) which flows is directly proportional to the electrical force (voltage). This relationship can be written

$$E = IR$$

where E is the electrical force, I is the current, and R is the resistance (ohms) of the conductor.

Use this information to answer the following questions:

a) What voltage is needed to force 4 amperes of current through a light bulb having 125 ohms of resistance? _____ volts

b) Sixty amperes of currents are measured flowing through a power line having 2.1 ohms of resistance. What is the voltage in the line? _____ volts

c) A night light placed in a 120 volt circuit uses .375 amperes of current. What is the resistance in the bulb? _____ ohms

Name_____ Grade____ Date_____ Instructor_____

Objective: Compare numerical values to determine extremes, central characteristics and trends.

Administrative Mode: The instructor should have students respond to each question working on his(her) own.

1. Arrange the following twist drill sizes in order from smallest to largest.

   Fractions: $\frac{25}{64}$, $\frac{5}{16}$, $\frac{7}{32}$, $\frac{1}{8}$, $\frac{3}{32}$, $\frac{15}{64}$, $\frac{7}{16}$

   Decimals: .2657 , .1614 , .3150 , .3937 , .4921 , .0492

2. If a quart of motor oil cost 75 cents and was on sale for 50 cents, for what percent of the original cost are you purchasing the oil?

3. If you purchased the cars described in the following ad, how much would they actually cost you?

   1978 Monza $_____

   1978 Nova $_____

   1978 Chevy $_____

BRAND NEW 1978 MONZA
2+2 Hatchback Cpe., 4 Spd., Sport Mirrors, Pwr. Steering, W/Stripe Tires, Radio. Stock #3173.
$90.52 Per Month
SALE PRICE $3890. Based on $500 down cash or trade. 48 months.
BRAND NEW 1978 NOVA
6 Cyl., 3 Speed, Pwr. Steering, Wheelcovers, White Striped Tires, Windshield Antenna. Stock #3126X.
$89.98 Per Month
SALE PRICE $3870. Based on $500 down cash or trade. 48 months.
BRAND NEW 1978 CHEVY
PICKUP 6 cylinder, 3-speed standard transmission, gauges, stepside or fleetside. Stock #3195.
$88.09 Per Month
SALE PRICE $3799 Based on $500 down cash or trade, 48 months.

4. What is the actual percentage of the sale price compared to the list price for the TEDDY R. PRESIDENT CB radio described below?

_____%

5. Water requirements of ewes increase greatly during late gestation. Using the table presented below for ewes carrying single lambs, determine the pounds of water intake/pounds of dry matter consumed for ewes carrying twins if their water intake is about 20% greater the third month of pregnancy, 25% greater in the fourth month, and 75% greater in the fifth month.

POUNDS OF WATER INTAKE/POUND OF DRY MATTER CONSUMED FOR EWES CARRYING SINGLE LAMBS

Growing & Fattening Sheep	1st month gestation	2nd month gestation	3rd month gestation	4th month gestation	5th month gestation
2.0	2.0	2.8	3.0	3.6	4.4

FOR EWES CARRYING TWIN LAMBS

___	___	___	___	___	___

Name_____ Grade____ Date_____ Instructor_____

Objective: Recognize communication skills needed to become successful in careers.

Administrative Mode: Have students select or make-up their own response to questions 1 - 6. Question 7 requires the student to write a short statement. After the student has completed all questions, the instructor should discuss responses with students.

1. If you were working at a local department store, how should you answer the telephone?

   _____ a. "Hello"

   _____ b. "(Name of the department store) Can I help you?"

   _____ c. "Whose this?"

   _____ d. "What?"

2. If you were pushing a loaded hand truck around a crowded store, the best way to get through a group of people blocking an aisle should be to say:

   _____ a. "Please step aside"

   _____ b. "Excuse me please"

   _____ c. "Watch it; coming through"

   _____ d. "Hey! Step aside"

3. If you were working in a department store and saw a customer looking for an item, what should you say in addressing the customer?

   _____ a. "What are you looking for?"

   _____ b. "Can I help you?"

   _____ c. "Do you need any help?"

   _____ d. "Hey! Can I help you?"

4. If you were delivering a package to someone's home, what should you say to the person who answers the door?

_____ a. "Hi. Here's your package"

_____ b. "Did you order this package?"

_____ c. "Is this your name and residence? I have the package you ordered."

_____ d. Go to door, ring the bell, and leave the package.

_____ e. "Good afternoon. Is this your name and residence? I have a package for you."

5. If you are a cashier at a self-service gas station, how should you respond to an individual whose bill was five dollars and one cent who only hands you five dollars and starts to walk away?

_____ a. "Hey! You owe me another penny"

_____ b. "Excuse me. Your bill is five dollars and one cent."

_____ c. "Wait one minute. You owe me another penny."

_____ d. "Sorry, but your bill is five dollars and one cent."

6. Consider a situation in which you were working for a landscape contractor who each morning presented you with a set of instructions for the day. If during one of these sessions you did not understand his instructions, what should you do?

_____ a. Wait until the end of the session, go up to the individual and ask that the point be clarified.

_____ b. Raise your hand and ask for the point to be clarified.

_____ c. Interupt his instructions at the point of misunderstanding and ask for a clarification.

_____ d. Hope that one of the other workers understands the instructions and can inform you.

7. If you start a new job, the best thing to do is:

_____ a. Tell jokes

_____ b. Try to make people think you're great

_____ c. Meet people; ask questions

_____ d. Don't speak to anyone unless spoken to.

8. Write a short note accepting a job and thanking an individual for the job.

9. Here are four categories:

a. Listening b. Speaking c. Writing d. Demonstrating

Which of these categories would best apply to the way in which an individual in the following occupations would need to communicate. Write letters in front of each occupation according to order of importance:

_____ Teacher	_____ Carpenter	_____ Judge
_____ Policeman	_____ Salesman	_____ Janitor
_____ Doctor	_____ Mechanic	_____ Waiter
_____ Store clerk	_____ House painter	_____ Radio announcer

Name _____ Grade ____ Date _____ Instructor _____

Objective: Listen to and understand spoken and visual instructions, directions, and information.

Administrative Mode: The instructor should present the student the visual symbols in item one and have the student write down the meaning. Items 2, 3 and 4 should be slowly read to the student, while he completes the task. After the student has completed all items, the instructor should check responses.

1. What do the following signs mean?

_____ _____ _____

2. Listen to these instructions:

"During a fire drill, students are to close the windows, file out of the room one at a time, without speaking, walk down the stairs two-by-two, go out the side door and keep moving until you are at the end of the school yard."

Answer true or false to the following questions:

While in school, if there is a fire drill you must:

_____ a. Leave all windows open a crack

_____ b. March down the stairs in single file

_____ c. Remain silent at all times

_____ d. Pass out through the front door

_____ e. Stop outside when you are clear of the building

3. Listen to the following instructions and complete the attached order blank:

   a. Place today's date in the upper right hand side of the form.

   b. On the front side of the order blank fill in the following:

      Bill to: Smith-Jones Public Schools

      Attention: Mr. Peter James

      School Address: 19 Jones Street

Smithtown	Conn.	06268
City	State	Zip Code

   c. Ship to: Smith-Jones High School

      Attention: Mr. John Smith

      School Address: 25 Smith Street

Smithtown	Conn.	06268
City	State	Zip Code

   d. The following items should be ordered:

      Two gallons of white house paint. The stock number is 06333 and the unit price is $6.50.

      Ten reams of white drawing paper. The stock number is 43211 and the unit price is $2.00.

DATE _____

BILL TO: _____ (School or Institution)

Attn: Mr. / Miss / Mrs. _____

School Address: _____ (Street)

_____ (City) (State) (Zip)

(Fill In Only If Different From "BILL TO")

SHIP TO: _____ (School or Institution)

Attn: Mr. / Miss / Mrs. _____

School Address: _____ (Street)

_____ (City) (State) (Zip)

☐ MASTER CHARGE ☐ VISA

CREDIT CARD NUMBER

EXPIRATION DATE

FOR MASTER CHARGE
ENTER 4 DIGITS ABOVE NAME

SIGNATURE _____

FREE FREIGHT POLICY: On orders of $350.00 and over, we will pay all freight charges on shipments to one destination in the New England and New York states, excluding furniture and equipment. All other orders are F.O.B. Shipping Point.

QUANTITY	UNIT OF MEASURE	CATALOG STOCK NO.	NAME OF ITEMS	UNIT PRICE	TOTAL Dollars	TOTAL Cents

MINIMUM ORDER $10.00

Form #G606

4. Listen to the following instructions and complete the attached office memo:

   a. The office memo is going to John Smith

   b. The date is (today's date)

   c. The office memo is from Peter Jones

   d. The telephone number is 203 423-3056

   e. The subject of this memo is the lost band saw blades

   f. On June 3, 1978 I ordered two bandsaw blades from your company. It has been six months and I have received your bill, but have not received the bandsaw blades.

      My Order Number was 45681

      Your Billing Number was 623.

      Thank you,

      Peter Smith

Office Memo

STO-199 REV. 9/75 (Stock No. 6938-052-01)

TO:	DATE
FROM:	TELEPHONE

SUBJECT

PRACTICAL EMPLOYEE SUGGESTIONS EARN CASH AWARDS!

Send your suggestions to:

Employees Suggestion Program, State Office Building, Hartford, Conn. 06115

Name_____ Grade____ Date_____ Instructor_____

Objective: Read and understand pictorial, graphic, and symbolic information.

Administrative Mode: Have students respond to the questions presented.

1. Use the newspaper ad presented in Figure 1 and answer the following questions:

   a. If you needed two Fiberglass - Belted Tires, Size F60-15 how much would be the cost, including tax?_____

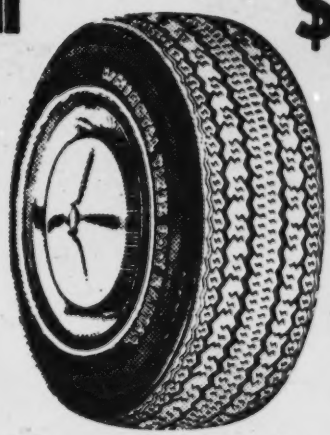
   b. What would the tax be on one Tiger Paw Radial Tire, Size HR 78-15?_____

   c. What do the letters F.E.T. represent? _____

TIGER PAW Radial

- Double Steel/Glass Construction
- Whitewall

UNIROYAL



$39.00 BR78-13 Whitewall tubeless plus F.E.T.

SIZE	PRICE	F.E.T.
BR78-13	$39.00	$1.99
DR78-14	$44.00	2.32
ER78-14	$45.00	2.40
FR78-14	$48.00	2.58
GR78-14	$51.00	2.76
HR78-14	$54.00	2.96
GR78-15	$52.00	2.83
HR78-15	$56.00	3.03
JR78-15	$60.00	3.19
LR78-15	$60.00	3.34

Whitewall tubeless price each plus Federal Excise Tax.

TIGER PAW 60 SS

SIZE	PRICE	F.E.T.
F60-14	$47	$2.85
F60-15	$48	2.94
G60-14	$50	3.04
G60-15	$51	3.07
H60-14	$54	3.47
H60-15	$55	3.58
L60-15	$60	3.69

All prices plus F.E.T.

Fiberglass-Belted
RAISED WHITE LETTERS

$38

Size A60-13 raised white letters, plus $2.11 F.E.T.

TIGER PAW 70 "Alley Cat"

SIZE	PRICE	F.E.T.
D70-14	$38	2.27
E70-14	$41	2.44
F70-14	$45	2.57
G70-14	$47	2.73
H70-14	$51	2.98
E70-15	$45	2.71
G70-15	$48	2.80
H70-15	$52	2.99

All prices plus F.E.T.

Fiberglass-Belted
RAISED WHITE LETTERS

$36

Size A70-13 raised white letters, plus $1.96 F.E.T.

WIND CHILL TABLE

Temperature in Fahrenheit degrees

Wind MPH	Wind chill index																
	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
0	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
5	33	27	21	16	12	7	1	-6	-11	-15	-20	-26	-31	-35	-41	-47	-54
10	21	16	9	2	-2	-9	-15	-22	-27	-31	-38	-45	-52	-58	-64	-70	-77
15	16	11	1	-6	-11	-18	-25	-33	-40	-45	-51	-60	-65	-70	-78	-85	-90
20	12	3	-4	-9	-17	-24	-32	-40	-46	-52	-60	-68	-76	-81	-88	-96	-103
25	7	0	-7	-15	-22	-29	-37	-45	-52	-58	-67	-75	-83	-89	-96	-104	-112
30	5	-2	-11	-18	-26	-33	-41	-49	-56	-63	-70	-78	-87	-94	-101	-109	-117
35	3	-4	-13	-20	-27	-35	-43	-52	-60	-67	-72	-83	-90	-98	-105	-113	-123
40	1	-4	-15	-22	-29	-36	-45	-54	-62	-69	-76	-87	-94	-101	-107	-116	-128

2. The above chart shows how temperatures and wind speed combine to produce a wind chill factor lower than the actual temperature.

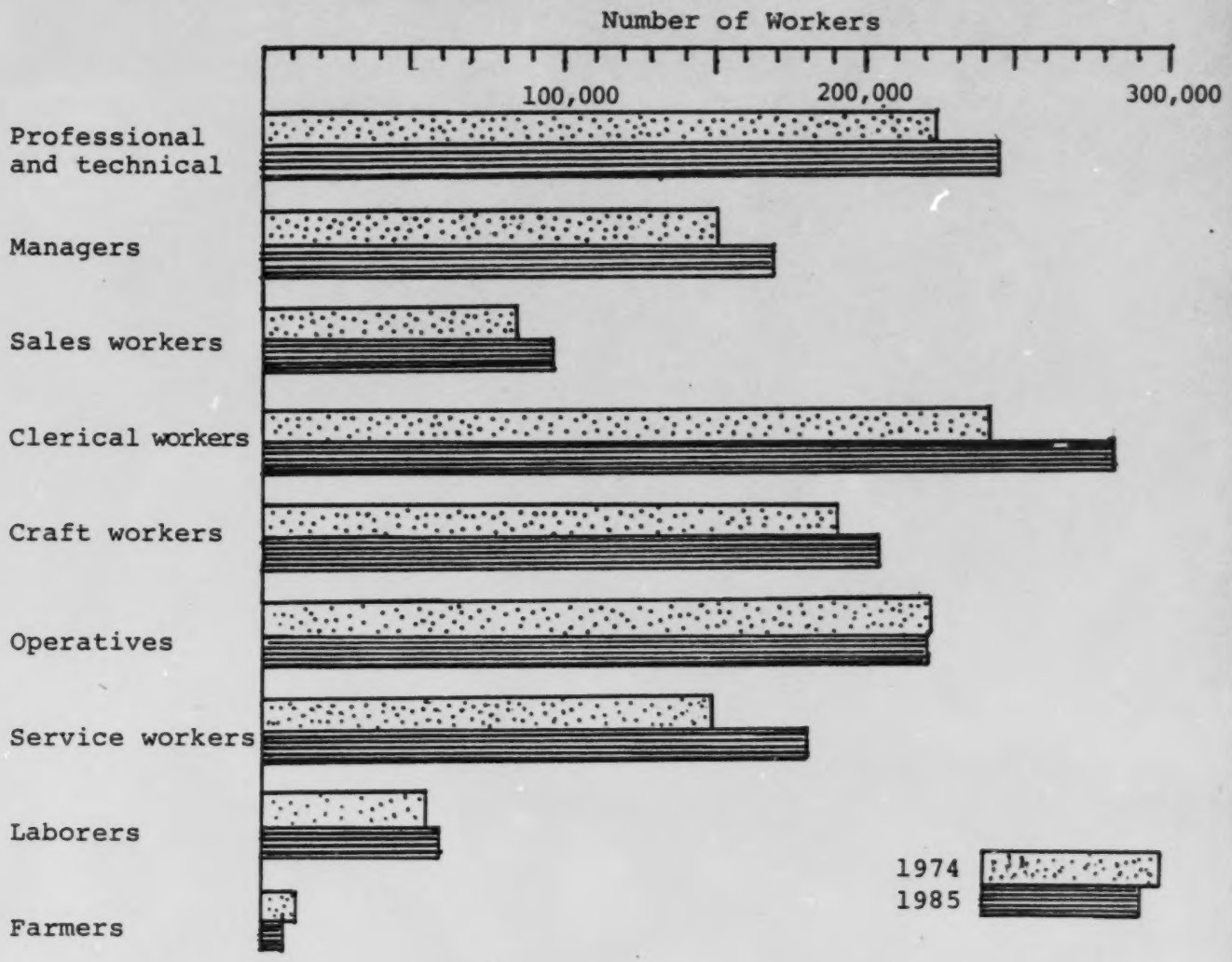
   a. What would be the wind chill factor if winds were 20 mph and the temperature was five degrees? Ans:_____ degrees

   b. What wind chill factor would result with winds 5 mph and a temperature of -20 degrees? Ans: _____ degrees

   c. What would the actual temperature be if the winds were 10 mph and the wind chill factor was two below zero?

   Ans: _____ degrees

EMPLOYMENT IN CONNECTICUT BY OCCUPATION, 1974 and 1995



3. Answer the questions using the graph shown above.

   a. Which occupational group is estimated to have the largest number of workers in 1985? Ans: _____

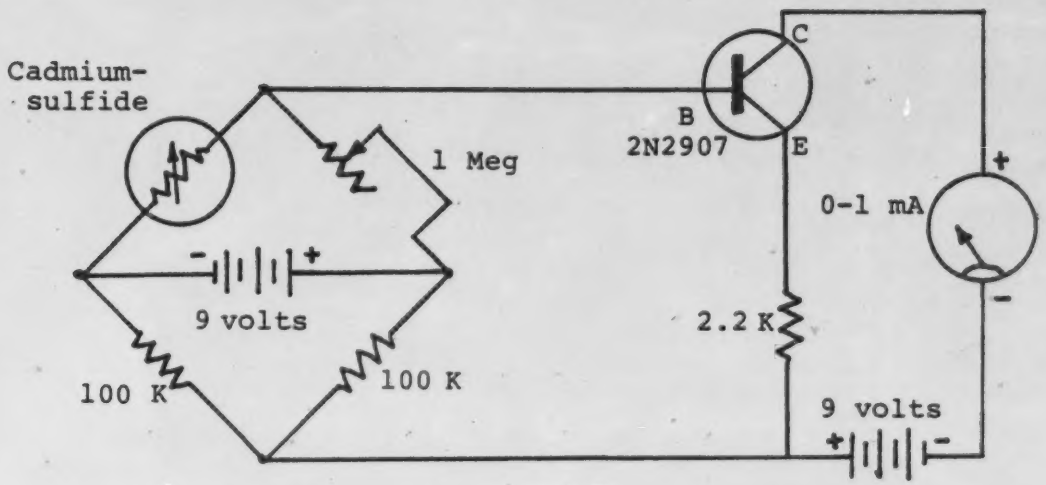
   b. Which two occupational groups are expected to show the greatest increase in workers over the period from 1974 to 1985?

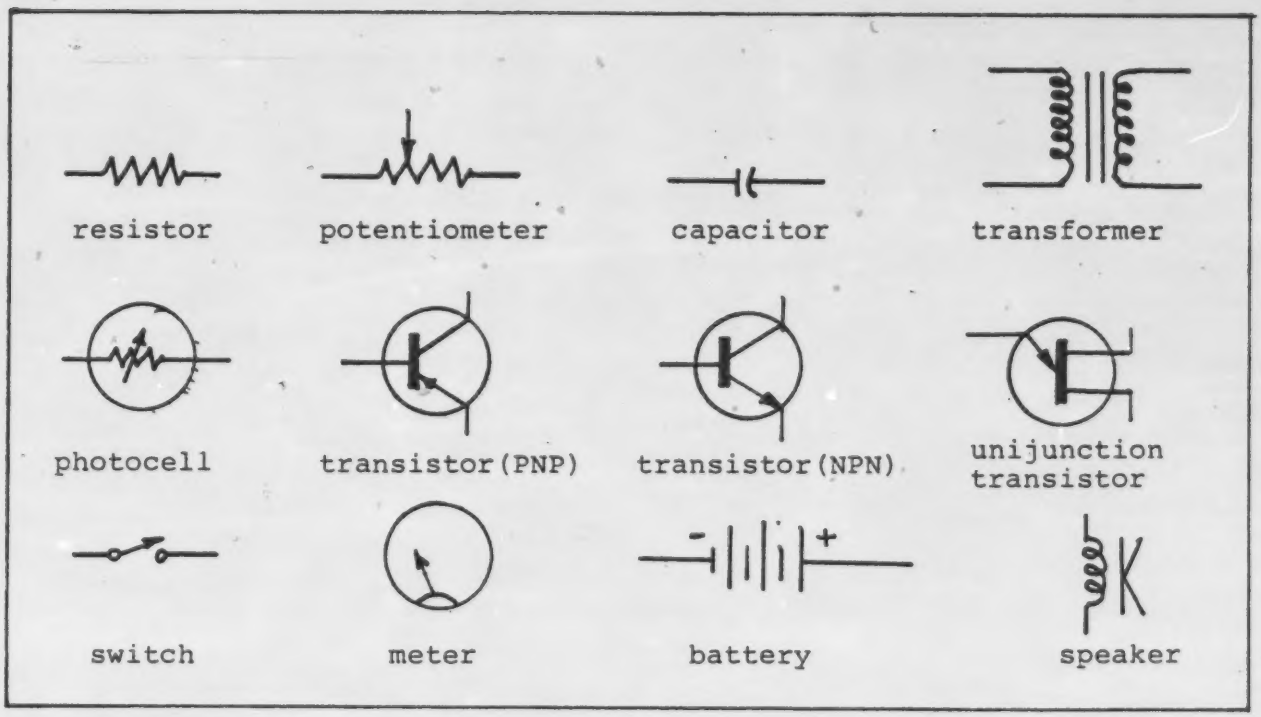
      Ans: _____ _____

   c. Which occupational group decreased in number of workers from 1974 to 1985? Ans: _____

   d. Name the occupational groups which will exceed the number of 160,000 workers in 1985? Ans: _____

4. Label all electrical components directly on the schematic drawing with the aid of the electrical symbols shown below.





Name_____ Grade____ Date_____ Instructor_____

Objective: Give directions, explain, describe, and demonstrate clearly.

Administrative Mode: Discuss with students successful ways to give directions, explanations, and demonstrations. Then give the student time to prepare for and explain or demonstrate to you or the class the procedures for using various equipment, tools, and/or response material. The instructor should rate the student's performance using criteria such as that shown below.

1. Have the student explain and demonstrate how to use a specific hand tool or piece of equipment. Examples in a drafting class might be a T square, compass, or triangle; in home economics a hand mixer, pinking shears, or knitting needles; or in automotives a spark plug and ignition gauge, air metal working kit, or a vertical disc sander.

   Instructor's Rating:

   That which was demonstrated or explained: _____

   To whom was it demonstrated or explained: _____

   a. Preparation for demonstration (check one):

      __ Fully prepared; well thought out before hand
      __ Had the know how, but did not have everything ready
      __ Not well enough prepared to demonstrate or explain clearly.
      Other comment: _____

   b. Clearness and conciseness of the demonstration (check one):

      __ Used language that was understandable; demonstrated smoothly or explained clearly; concise and to the point
      __ Slightly more technical than necessary; took more time than was needed; did not express himself as well as he might have; lacked skill or knowledge in the use of the tool or subject
      __ Talked over the group's head; rambled on; missed making essential points; or did not demonstrate properly.
      Other comment: _____

   c. How well the demonstration or explanation was understood (check one):

      __ Checked to find out if the group comprehended; repeated parts not entirely understood; offered practice in the skill
      __ Asked group if they had any questions, but did not make a wholehearted effort to assure that everyone had learned
      __ Made no attempt to determine whether the group had learned what had been demonstrated.
      Other comments: _____

2. Have the student explain to another individual how to use a catalog and complete an order form. An order form appears on the next page. Use criteria for rating such as that presented for the last problem.

3. Have the student obtain a description of an accident, review the Accident or Cause of Injury form attached, and explain to another individual how to complete the accident report. Use criteria for rating such as that presented for the previous exercises for this objective?

ORDER FORM

Bill to: _____ Ship to: _____

Address: _____ Attn: _____

City and State: _____ Address: _____

Zip Code: _____ City and State: _____

Date _____ Phone: _____ Zip Code: _____

Ordered by: _____

Title: _____

Stock No.	Quan.	Unit	Description and Size	Price	Total

ACCIDENT OR CAUSE OF INJURY

2E-4

Date of accident ..... Hour ..... M Date Stopped Work ..... 19.....

Place where accident occurred .....

City or Town .....

Did accident occur on State Property? (Yes or No) ..... Private Property? (Yes or No) .....

If so, state what part of premises, establishment or buildings .....

.....

Cause of injury .....

.....

If caused by machinery or instrument, state name and type of same .....

If falling accident, state what caused fall .....

.....

How did accident happen? Report in detail .....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Witnesses of accident:

Names Where employed.

.....

.....

.....

Name and address of attending Physician:

.....

If taken to hospital, give name .....

Also state type of transportation and name of person or firm supplying same .....

.....

59

[Signed] Name .....

Title .....

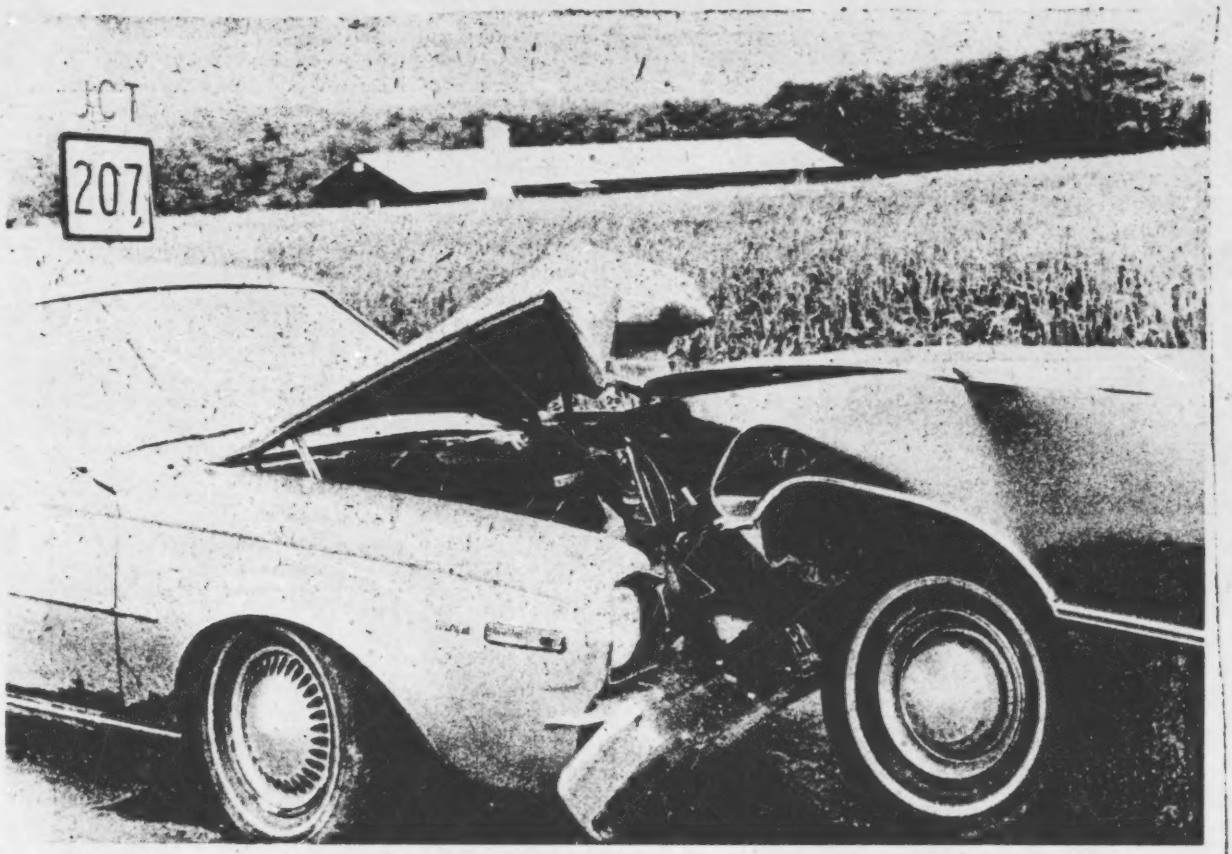
Name_____ Grade____ Date_____ Instructor_____

Objective: Write organized, legible and articulate reports and summaries.

Administrative Mode: Have students complete the exercises individually.

1. The driver of each vehicle in the photograph has his own story to tell, a story based on his part in the drama just concluded.

   Write a short report as if you were the driver of one of the cars.



TWO CAR CRASH — Elizabeth Pross of Chester was charged by state police with failure to grant half the highway after her car (on left) crashed into another vehicle on Route 16 in Lebanon Tuesday afternoon. She was given outpatient treatment at W.W. Backus Hospital for a fractured humorous while the other driver, Virginia C. Varca of 11 Lake Shore Drive, was treated for cuts and abrasions. Authorities said the Pross vehicle was traveling on the wrong side of the highway when it struck the other vehicle head-on.
(Bulletin Photo by Rabinowitz)

2. Write a short report describing a class, club, or other school activity meeting you attended.

3. Write the directions explaining how to do one of the following simple tasks:

   a. Change the tire on a car

   b. Operate a washing machine

   c. Change a ribbon on a type writer

   d. Change the needle on a sewing machine

Name_____ Grade____ Date_____ Instructor_____

Objective: Prepare concise letters, messages, want ads, and telegrams.

Administrative Mode: There is probably more need for disenssion before and after completion of the exercises developed for this objective. Have students carryout the exercises on their own.

1. When it costs extra for each word you include in a classified add, it pays to be brief and to the point. Write a "For Sale" ad using the directions given below using not more than 20 words. Describe vegetable and flower seedlings grown by a vocational agricultural group in your school which will go on sale May 20. Write your ad directly in the space provided on the coupon below. Include your name, address, and the date you want the ad placed.

*** GUARANTEED CLASSIFIEDS**

* If you don't sell the item, call us by Mon. 10 a.m. and the second week is FREE!

15 WORDS—ONLY $1.00

5¢ For Each Additional Word

THE HEADING IS FREE! CIRCLE THE ONE YOU WANT!

FOR SALE—WANTED—FOR RENT—HELP WANTED—WILL SWAP—TAG TALE

(PHONE NUMBER COUNTS AS ONE WORD)

FILL OUT THIS COUPON AND MAIL OR BRING TO:
THE CHRONICLE & GOLDMINE, Chronicle Rd., Wmtc. 06226
PLEASE INCLUDE CORRECT AMOUNT

1.	2.	3.	4.	5.
6.	7.	8.	9.	10.
11.	12.	13.	14.	15.
16.	17.	18.	19.	20.

NAME _____ PHONE

ADDRESS _____

FOR WEDNESDAY _____ 1978

2. Read the following want ads for job openings. Select one you feel you would have the best chance of getting and write a brief letter in the space below the ads requesting an opportunity to be considered for the opening.

TELEPHONE interviewing - work from home. No selling. Experience helpful. Part-time only. Send information Chronicle Box 56. 7-14pd

WANTED. TEACHER aide for Hebron Center Nursery School. Monday thru Friday mornings. Call 537-1990 or write box 137, Hebron, for applications until July 22.

WANTED. VENDERS to sell fish, berries, vegetables and crafts at Willimantic Farmer's Market. Contact Ann Reed at 423-4534 between 8:30-4:00 Mon.-Fri.

FULL TIME Position for person with good office practice skills, typing, some knowledge of bookkeeping preferred. Send resume to Chronicle Box. No. 61, Chronicle Road, Willimantic. 06226. 7-22

PART TIME HELP WANTED
IMMEDIATE OPENINGS

Bus Boys, dishwashers, broiler chefs, hostesses, line assistance and food prep people. Start now for Sept. daytime school work study programs.
Apply in person Tuesday-Friday 2:30-4:30.

YORK STEAK HOUSE
WEST FARMS MALL

3. Design an advertisement for display in a store indicating that one of the items pictured below is currently on sale. Show the reduced size of the advertisement in the space below the illustration.

29.87
Regularly 39.99
MR. COFFEE COFFEE SAVER
Brews exactly the amount of coffee you need to 10 cups. Model MC5200.

YOUR CHOICE
17.88
Regularly 21.99
SAVE! COLEMAN 2-BURNER STOVE OR 2-MANTLE LANTERN
Stove has folding wind screen, flame adjustor. Lantern has baked enamel finish. Both with famous Coleman quality campers appreciate!

4. Equipment suppliers usually include a parts list for large equipment purchased new. Sometimes cost of parts is not shown on the lists. Such is the case for the parts list for the grass mower shown below. Compose a letter requesting a new upper and lower handle for your model 117-062A mower from the Alabama address given. Include all of the identification required by the manufacturer. Your letter should include your preference for handling costs.

POWER EQUIPMENT PARTS AND SERVICE

Parts and service for all MTD manufactured power equipment are available through the authorized service firms listed below. All orders should specify the model number of your unit, parts numbers, description of parts and the quantity of each part required.

ALABAMA **BIRMINGHAM**
Auto Electric & Carburetor Co...2625 4th Ave. S. 35233

PARTS LIST FOR MOWER MODELS 117-062A AND 117-064A

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	746-0234		Throttle Control Ass'y.—Complete	
2	718-0143		Grip	
3	11204		Upper Handle	
4	09966		Handle Knob	
5	710-0405		Curved Hd. Bolt 5/16-18 x 1.75	
6	710-0227		Hex Hd. AB-Tapp Scr. #8 x .38	
7	18611	—378	Shroud (062A only)	
8	—		Engine	
9	710-0158		Hex Hd. Cap Scr. 5/16-24 x 1¼" Lg.*	
10	731-0344		Plastic Label—Black	
11	246-0174		Conduit and Wire	
12	12927		Handle Mount Brkts.—L.H.	N
13	12329	—378	Deck Ass'y.—Comp.	
14	736-0119		Spring L-Wash. 5/16" Scr.*	
15	712-0123		Hex Nut 5/16-24 Thd.*	
16	10950		Height Adjuster Ass'y.—Complete L.H.	
17	714-0365		#6 Hi-Pro-Key 5/32 x 5/8" Dia.	
18	10769		Blade Adapter Kit	
19	742-0123		20" Blade	
20	736-0217		Spring L-Wash. 3/8" Scr. H.D.	
21	10769		Blade Adapter Kit	
22	710-0459		Hex Hd. Cap Scr. 3/8-24 x 1½" Lg. H.T.	
23	710-0117		Hex Hd. Cap Scr. 5/16-24 x 1" Lg. H.T.	
24	736-0119		Spring L-Wash. 5/16" Scr.*	
25	712-0123		Hex Nut 5/16-24 Thd.*	
26	9392—502		Wheel Ass'y.	
27	738-0213		Axle Bolt	
28	736-0105		Bell. Wash. .400" I.D. x .88" O.D. x .060	
29	10951		Height Adjuster Ass'y.—Complete R.H.	
30	711-0555		Pivot Pin	
31	710-0289		Hex Scr. ¼-20 x .50" Lg.*	
32	11681	—378	Chute Deflector Ass'y.	
33	710-0209		Hex Sems Scr. 3/8-16 x .62" Lg.	
34	726-0126		Push-on Flange Palnut	
35	11130	—378	Adapter Plate	
36	712-0107		Hex L-Nut ¼-20 Thd.	
37	712-0271		Hex Sems Nut ¼-20 Thd.	
38	710-0567		Hex Scr. ¼-28 x .62" Lg.	
39	12928		Handle Mount Brkt.—R.H.	N
40	11190	—378	Rear Protective Shield Ass'y.	
41	749-0104		Lower Handle	
42	746-0128		Cable Clip for 7/8" Tubing	
43	710-0136		Hex Scr. ¼-20 x 1.75" Lg.*	
44	712-0107		Hex Cent. L-Nut ¼-20 Thd.	
45	07520		Height Adjuster Knob—Red	
46	10949		Spring Lever Ass'y. w/Knob	
47	736-0219		Bell. Wash. .400 I.D. x 1.13 O.D.	
48	712-0116		Hex Inserted L-Nut 3/8-24 Thd.	
49	710-0209		Hex Sems Scr. 3/8-16 x .62" Lg.	
50	10934		Index Plate Ass'y.—R.H.	
	10935		Index Plate Ass'y.—L.H.	
51	10937		Pivot Bar	
52	732-0253		Torsion Spring	

Name_____ Grade____ Date_____ Instructor_____

Objective: Identify and use common tools, fasteners and equipment to perform simple household or job tasks.

Administrative Mode: The instructor should explain for the student the instructions presented in items 1-3. The instructor should observe the students tool selection and manipulation of materials, tools and equipment. The instructor also should supply the necessary tools, equipment and materials.

1. Perform one of the following tasks. Be sure to select the appropriate tools, equipment and materials.

   a) Fasten wood with woodscrews

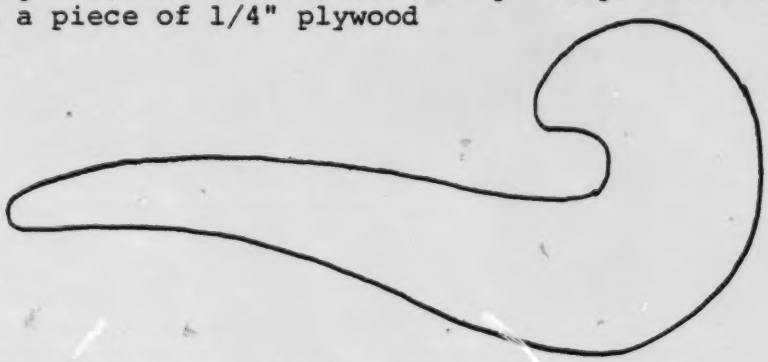
   b) Splice double strand, insulated copper wire

   c) Replace a sewing machine needle and bobbin and thread the needle.

2. Use the correct tool and perform one of the following activities:

   a) Using a spoon, blender, or hand mixer, combine ingredients for a cake

   b) Using a coping saw, cut out the following design for a belt balance from a piece of 1/4" plywood



   c) Using a pocket calculator, add 6 + 8 + 10 + 12, multiply by 23 and then divide by 7.

3. Use the correct tool and perform each of the following tasks:

   a) Use pinking shears to cut the edge of a piece of fabric

   b) Use an electric soldering iron to solder two wires together

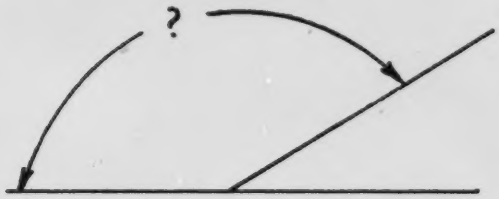
   c) Use a utility knife and straight edge to score and fold a piece of cardboard in half.

Name_____ Grade____ Date_____ Instructor_____

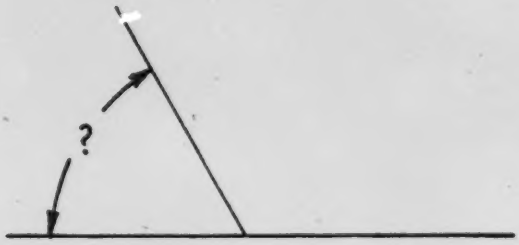
Objective: Read and understand gauges, scales and other common measurement instruments.

Administrative Mode: The instructor should explain for the student the instructions presented in items 1-3. The instructor should observe the student's use of tools and equipment. The instructor is responsible for supplying the necessary tools, equipment and materials.

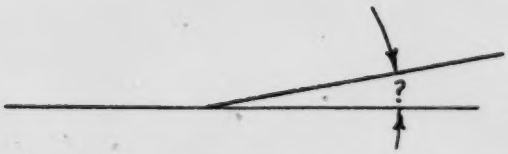
1. Use a protractor, measure the angles illustrated below and record your answer under the illustration.



a. Answer: _____ degrees



b. Answer: _____ degrees



c. Answer: _____ degrees

d. Answer: _____ degrees

2. Use an architect scale and determine the length of each line below using the scale indicated. Record your answer below each illustration.

_____

½" scale

a. Answer: _____

_____

3/4" scale

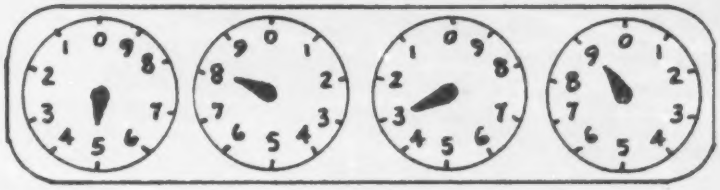
b. Answer: _____

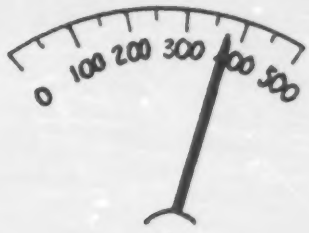
1" scale

c. Answer: _____

3. Use a compass and draw a circle 2¼" in diameter.

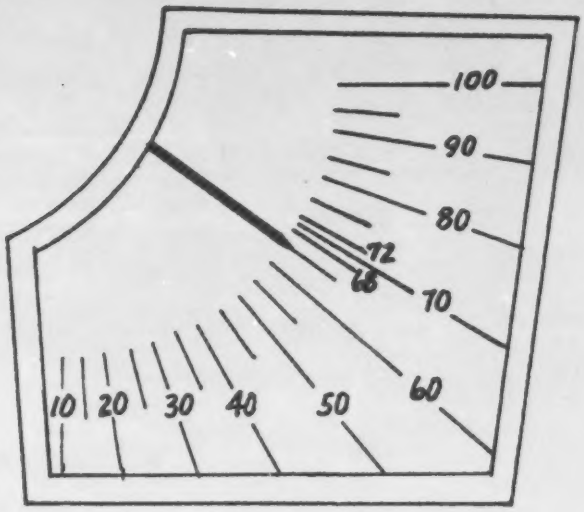
4. Read the following gauges and write down the readings in the answer space provided.



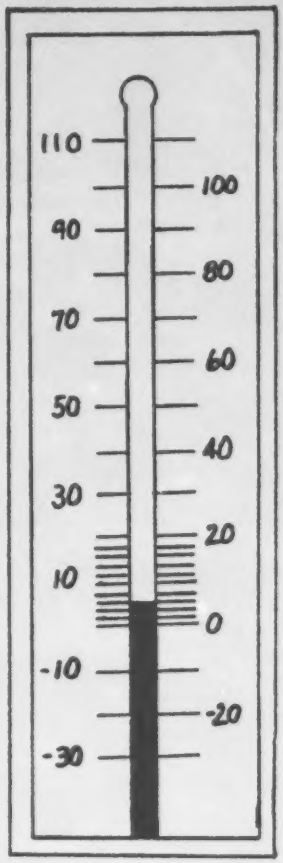


a. Answer _____ kilowatt hours

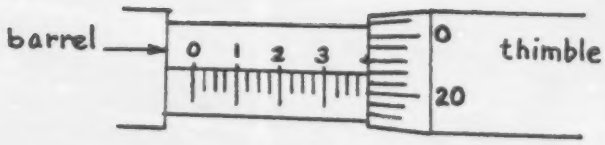
b. Answer: _____ volts



c. Answer: _____ degrees fahrenheit



d. Answer: _____ degrees fahrenheit



The above is an illustration of an English micrometer with the barrel measurement indicating hundreds of thousandths inches (.100, .200, .300, etc.) and the thimble graduated into 25 parts, each line equaling .001 inch.

e. Answer: _____ inches

Name_____ Grade____ Date_____ Instructor_____

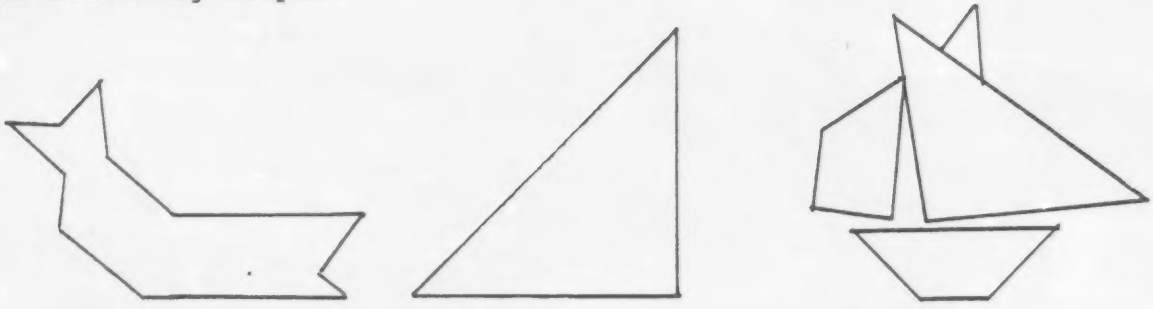
Objective: Construct, fabricate, and assemble using appropriate tools, equipment and materials.

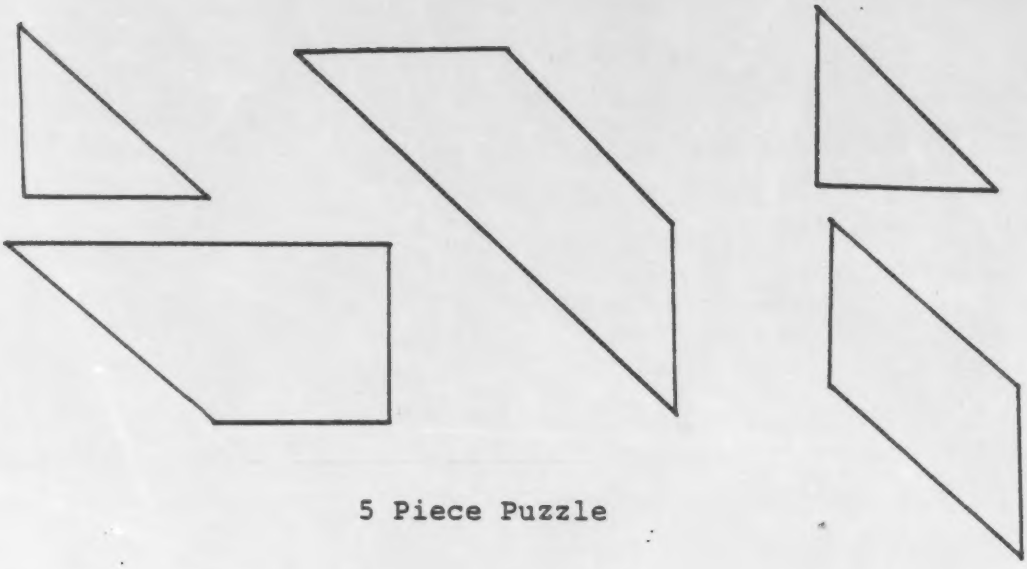
Administrative Mode: Instructors should supply their own general purpose exercises for this objective choosing according to the facilities, equipment, and tools available. Several examples of paper layout, cut out and assembly have been presented as examples; however, these exercises should go beyond paper constructions.

1. Cut out and assemble the 5 piece puzzle on the following page to form a T shape.

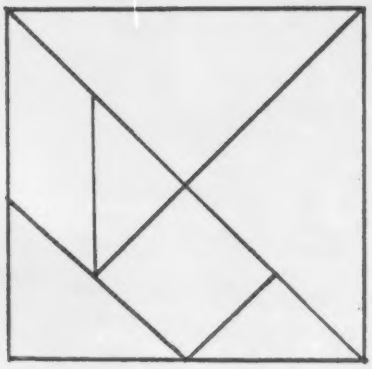
2. Using appropriate tools, layout the seven piece puzzle on the following page according to the measurement given.

3. Cut out the pieces of the seven piece puzzle you made and construct the following shapes.





5 Piece Puzzle



7 Piece Puzzle

Enlarge to an 8 inch square

4. Use the appropriate tools, materials and equipment to construct either a puppet, flower or cube using the following directions:

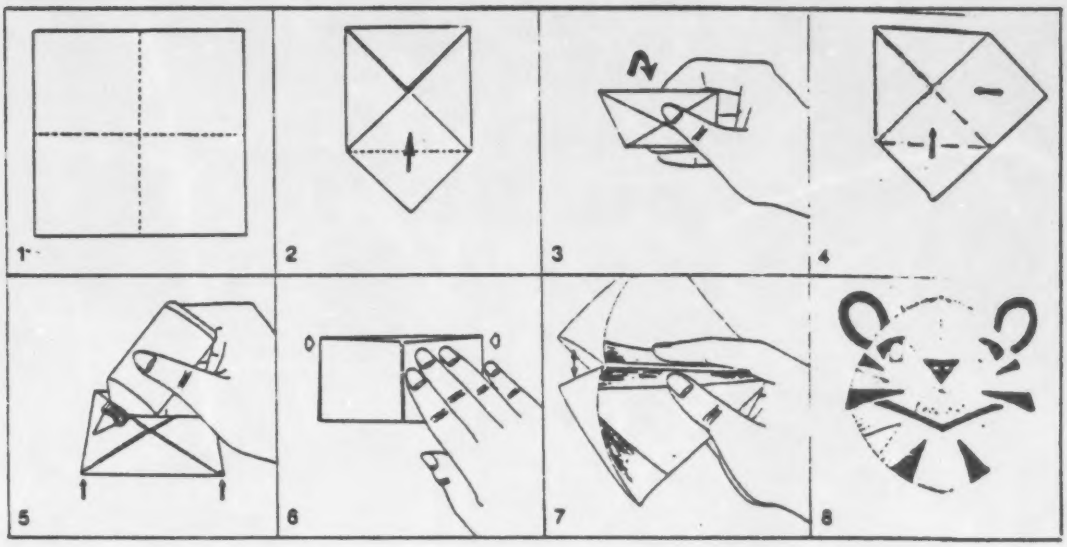


Figure 15-6 PINCH PUPPETS

Materials: construction paper, paint, scissors, paintbrush, glue.

1. Fold a piece of paper in quarters and then unfold it.
2. Fold the four corners into the center.
3. Turn the folded paper over.
4. Fold the four corners into the center.
5. Apply glue along two edges.
6. Fold half so that the top meets the bottom.
7. Insert fingers and form the puppet's mouth.
8. Add features to the puppet.

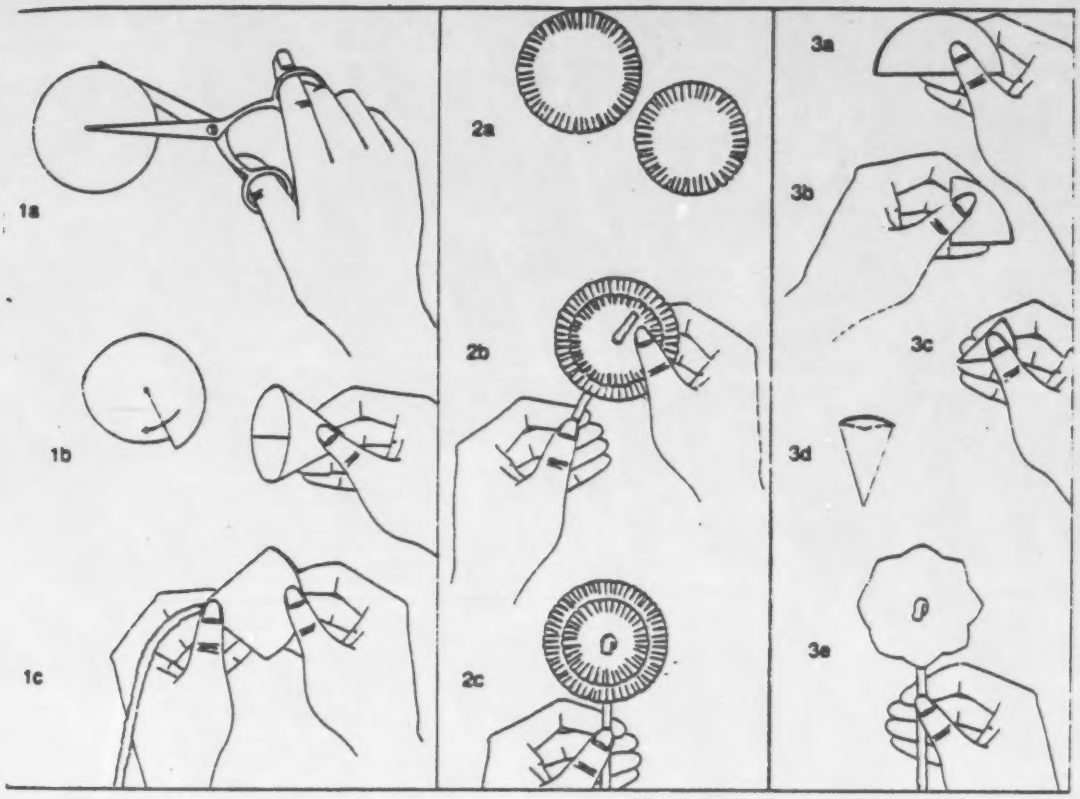
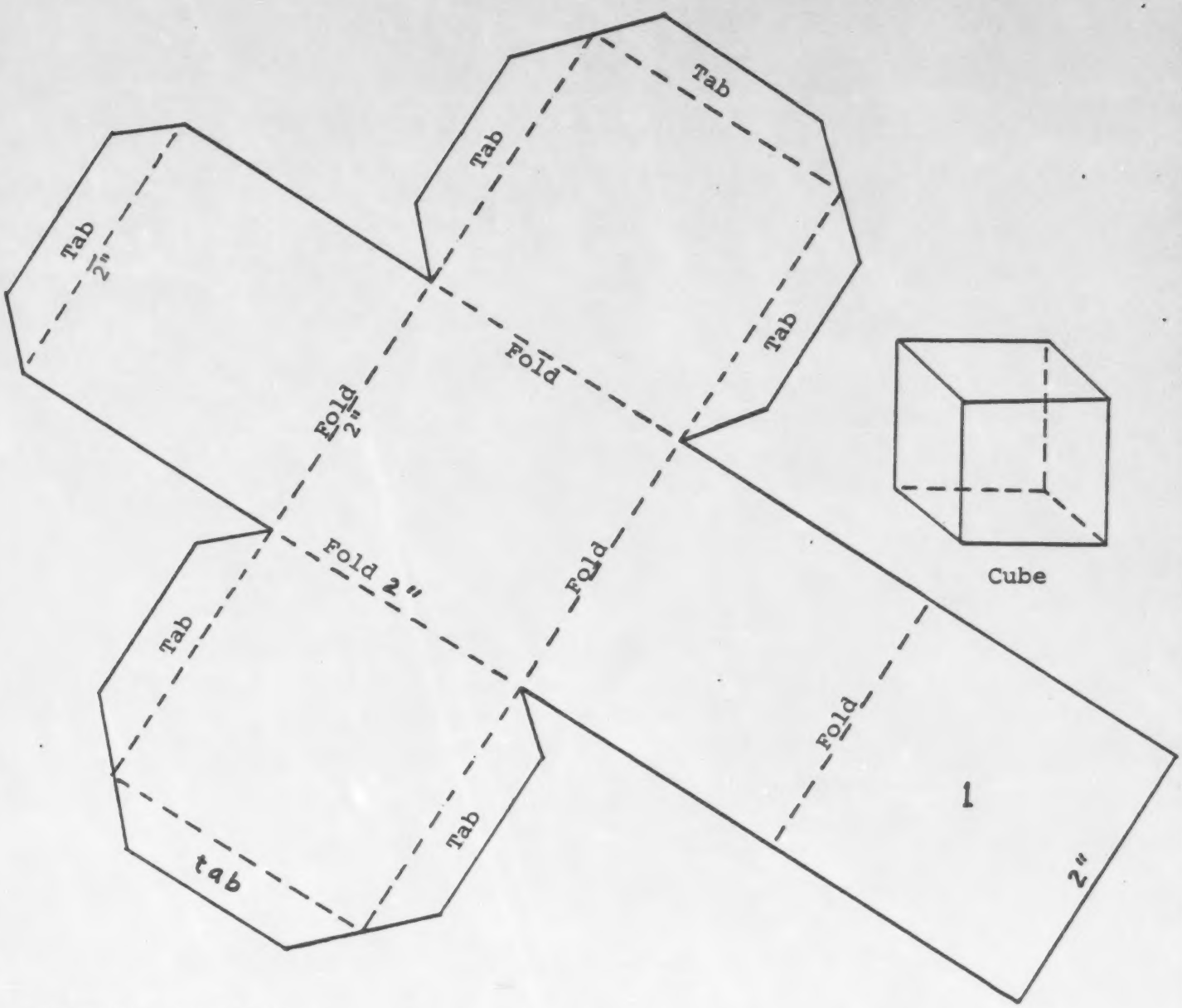


Figure 7-9 PAPER FLOWERS

1. Flower A
   a. Cut a straight line from the outer edge to the center of the circle.
   b. Overlap the cut edges to form a cone.
   c. Insert a pipe cleaner in the peak of the cone and pinch the paper.
2. Flower B
   a. Fringe the edges of a large and small circle.
   b. Put the smaller circle on the larger circle and push a pipe cleaner through both centers.
   c. Bend the end of the pipe cleaner.
3. Flower C
   a. Fold a circle in half.
   b. Fold the circle in quarters.
   c. Fold the circle in eighths.
   d. Cut a scalloped edge.
   e. Unfold and insert a pipe cleaner.



Cube

Specific directions:

1. Draw the figure and cut out.
2. Score all lines. Scoring may be done by holding a ruler beside each line and running the rounded point of the scissors along the line. This is necessary in order to make neat folds and corners.
3. Fold each tab upward and along each dotted line.
4. Glue each tab (Duco Cement works well.)
5. Fold tabs inside and secure sides together.
6. A ruler may be used to press tabs and sides together.
7. Bring the top side (numbered 1) over and fasten.
8. Rub a ruler along each outside edge and wipe off excess glue.
9. Let dry about 5 minutes.

Name_____ Grade____ Date_____ Instructor_____

Objective: Repair and maintain items common in household and occupations.

Administrative Mode: The instructor should review with the student items 1-4. The instructor should observe the students performance and how the finished product looks. The instructor should provide the necessary materials, tools and equipment.

1. Sew a coat button on to a piece of fabric.

2. Change a two wire cap on an extension cord. Also change the connector.

3. Change the plug in socket on a lamp cord.

4. Replace a line cord with plug attached to an appliance.

5. Change the blade on a power lawn mower.

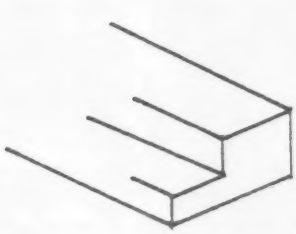
Name_____ Grade____ Date_____ Instructor_____

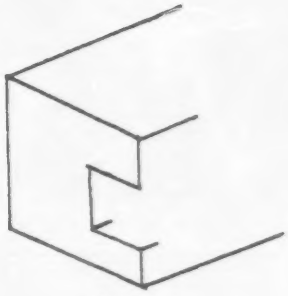
Objective: Plan and develop visual presentations.

Administrative Mode: Review items 1-4 with the students, request they perform the activities described in these items.

1. Draw a simple map showing the directions from your home to school.

2. Finish the "step" drawings, making the far end of each correspond to the near end.



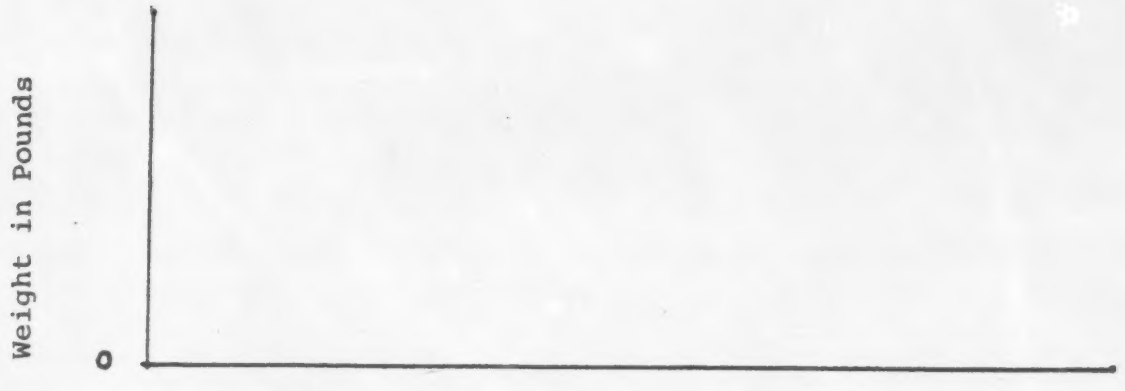


3. Sketch a baseball, football, or soccer field from memory. Show appropriate markings.

4. Make a line graph showing the rate of growth of a lamb for a sixty day period using the following information:

Weight at birth: 8 lbs (Feb. 6)
Other weekly weights:

Feb. 11: 12 lbs.	March 4: 26 lbs.	March 25: 41 lbs.
Feb. 18: 15 lbs.	March 11: 30 lbs.	April 1: 48 lbs.
Feb. 25: 20 lbs.	March 18: 36 lbs.	April 5: 56 lbs.



Name_____ Grade___ Date_____ Instructor_____

Objective: Know specific procedures and principles used in information processing, problem solving and decision making.

Administrative Mode: Students may work on the exercises developed for this objective individually, in pairs, or in teams.

1. If you were purchasing one of the following items, what procedures would you use in determining which brand and model is most suitable for your needs?

   Electric range

   Sewing machine

   Lawn mower

   Item to be purchased _____

   Response: (make notes on the process used by the student)

2. Give me the names of two occupations you would enjoy working in:

   1. _____

   2. _____

   If you were offered a job in both of these occupations, what procedures would you use in determining which job to accept.

   Response: (make notes on the process used by the student)

3. What types of decisions do the following individuals need to make in their occupations?

   a) Fireman

   b) Plumber

   c) Chef

   d) Automobile mechanic

   e) Sales clerk

   f) Shop owner

   Responses: (make notes on responses)

4. An organized approach to gathering information is almost always needed to make difficult decisions. Likewise, application of a problem-solving technique is highly recommended to perform complex tasks or to solve complicated problems.

For your next school work assignment requiring considerable thought and effort for completion, apply the problem-solving procedures listed below. It should be noted that these procedures apply in a general way to a wide variety of assignments.

Problem-Solving Procedures

Step 1: Analyze information and define problems. Scan several sources of information related to the assignment you are about to undertake. When you have a fairly good idea about its ramifications, write down in one sentence what it is you plan to do. Start your sentences with "I want to find out..., I plan to construct..., or, I need to solve..." type beginnings.

Step 2: Collect and organize data. Next, review more widely different sources of information related to the problem you wish to solve. Find out as much as you can about what is already known about the subject or problem. Don't trust your memory. Write down important ideas you've gotten from each source. Also, be sure to identify each source from which you obtained information. If you use small note cards for each important idea you want to record, you will find it easier to organize a large number of ideas under different headings preparatory to taking the next step.

Step 3: Identify possible solutions or alternatives. This is an extremely valuable problem-solving step that should not be overlooked. The object is to think up as many ways as you can to solve the problem. Don't settle for the first idea that pops into your head.

Step 4: Make decisions or choose alternatives in terms of relevant criteria. Having listed or illustrated a reasonable number of ways to accomplish your task, select what seems to be the best alternative. Choose it by asking questions such as the following:

Which solution is most economical of time?
Are all alternatives equally costly?
Which plan is likely to provide the most lasting solution?

Are some plans too dependent upon skills I have not developed? Decide for yourself which questions are most important and let answers to these help you select the alternative you will undertake.

Step 5: Implement plans. This is the point at which many complex tasks are started with nothing more than an idea in the designer, experimenter, or writer's head. Many such projects fail because of this or fail to produce the most desirable results. If you have given your best effort to the first three steps, you can approach this fifth step with much more assurance of that which is needed and also have a better chance of the first plan succeeding. So carry out or build the plan you have developed.

Step 6: Evaluate and modify plans based on feedback. When the plan has been carried out or constructed, analyze your product to determine how well it does what it is supposed to do. Get the opinions of others. Test it. If the completed product has flaws, modify it by using the same procedures used to develop the plan from scratch.

Name_____ Grade____ Date_____ Instructor_____

Objective: Analyze information and define problems.

Administrative Mode: Because of the nature of the items related to this objective, the administrative mode will depend upon the instructor and students. However, group discussion is very important to the development of this specific skill.

1. News Story

A news story is supposed to be an objective account of what happened; that is, it should report events as accurately as possible. "Slanting" or favoring a person, group or idea results when the reporter tells only part of a story, changes the facts, or highlights or underplays certain information.

a) Working with several members of your class, write the news stories suggested by one of the "slanted" headlines that follow.

Philadelphia - Striking Garbage Collectors and Street Cleaners Pose Health Threat to City

Electric Boar Forced to Lay off Thousands Due to Nonsettlement of Navy Contract Dispute

Federal Postal Workers Should Lose Their Jobs If They Strike

City's Refusal to Negotiate Forces Teacher Strike

b) Select articles from two or three newspapers about a local labor/management dispute. Read the articles, analyze them for conflicting views, and write down any conflicting points. Discuss these points with the instructor and others in the class.

2. Exploring an Occupation

Have two or three students who are interested in the same occupation collect information, analyze the information and define the educational requirements, advantages and disadvantages of a career in the field.

Name_____ Grade____ Date_____ Instructor_____

Objective: Collect and organize data.

Administrative Mode: Students should perform the activities described in each item individually.

1. Develop a schedule of how you plan on spending your time during the next 30 days including Saturdays and Sundays.

2. Make a collection of information relevant to a specific occupation. Organize the information into the different job opportunities within the occupation.

3. Make a collection of pictures, articles and other material about a specific occupation. Use these materials and plan a bulletin board or display which will detail the opportunities with this field of work.

4. Have the student develop a survey instrument which could be used to gather information from individuals concerning their knowledge about various occupations.

   Student should organize the collected data into a report.

Name_____ Grade____ Date_____ Instructor_____

Objective: Make decisions or choose alternatives in terms of relevant criteria.

Administrative Mode: Because of the nature of the items related to this objective, the instructor should have students work on one item at a time.

1. Many times we have difficulty making a decision because someone's opinion is considered fact. Do you know the difference between opinion and fact? Read the following article and answer the related questions.

FACT vs. OPINION . . .

It's important to be able to tell the difference between fact and opinion. A fact is an actual event or anything that can be proven to exist — a truth. An opinion is a belief that may or may not be true.

IS THAT A FACT?

Facts can be checked out and proved. You can test the truth of a fact. There's an old saying: "The proof of the pudding is in the eating." The proof of a fact is in your own observation, your own (or someone else's) experimentation, or your reference to an authority who is known to have the proof.

Fact: "It's a sunny day."
Proof: Look outside and see. (Observation)
Fact: Water boils at 100 degrees centigrade.
Proof: Measure with a thermometer. (Experimentation)
Fact: Richard M. Nixon was born in 1913.
Proof: Look it up in a standard reference. (Authority)

Sometimes we make the mistake of accepting a "generalization" as a fact. A generalization is a statement that is sometimes (but not always) true. Take the following statement: "The sky is blue." On some days the sky is blue, but it is not always blue. Haven't you also seen a gray sky, a black sky, a white sky, or a red sky?

How "factual" are the following statements? Are they true always? Sometimes? Never? Place a check in the proper column. But before you jump to too many Henny-Penny conclusions, keep this in mind: *only one* of the statements below is ALWAYS true—as far as we know right now.

	Always	Sometimes	Never
1. Three quarters = $1.	_____	_____	_____
2. Apples are sweet.	_____	_____	_____
3. Cows give milk.	_____	_____	_____
4. 403 + 209 = 712	_____	_____	_____
5. What goes up must come down.	_____	_____	_____
6. Grass is green.	_____	_____	_____
7. Girls are pretty.	_____	_____	_____
8. Men must die.	_____	_____	_____
9. Figures don't lie.	_____	_____	_____
10. Skunks smell bad.	_____	_____	_____

WHAT'S YOUR OPINION?

Opinions are statements whose truth cannot be proved. A person may think they are true, feel they are true, or believe they are true. But he cannot prove they are true.

Some opinions have more authority than others. When you're sick, you value your doctor's opinion of your illness more than your plumber's. When your faucet leaks, though, it's the other way around. Opinions are often as important as facts. ✿

2. Select two or three students interested in a particular occupation. Discuss with these students reasons for their interest in this specific career. Develop a list of reasons students give for selecting a specific occupation. Have students review the list and identify those statements based upon facts and those which are only opinions.

   Discuss with students their findings and determine if this factual information changes their interest in a specific area.

3. Why do individuals lose their jobs? Look at the following statements and discuss those which could cause you to lose a job. If you lost your job for one of these reasons, what would you do?

   a) Not following orders

   b) Complaining

   c) Lack of responsibility

   d) Lazy, late, absent

4. Suppose you owned an automobile that needed four new tires, but you had only enough money for two new tires. What are some alternatives for solving your problem?

Name_____ Grade____ Date_____ Instructor_____

Objective: Know the importance of interpersonal skills.

Administrative Mode: The instructor should review the following questions with a group of students. Group discussion is very important to the development of this specific skill.

1. The words "you are hired" are not the end, but only the beginning, in your search for a job.

   a) What are some of the interpersonal skills important to an individual in one of the following occupations?

      1) Teacher

      2) Plumber

      3) Sales clerk

      4) Secretary

   b) List five occupations which would require a high degree of interpersonal skills. Describe the types of interpersonal skills required for each occupation selected.

2. How would you handle the following situation?

The foreman in a shop in which you are working approaches you and tells you: "You're a trouble-maker, always questioning everything and everyone. Your co-workers refuse to work with you. I even try to avoid you."

3. How would you react to the following statement?

A co-worker made a false statement about your work habits. He told the boss that you are always complaining and very lazy.

4. What are some of the interpersonal skills necessary to a successful career in the world of work?

Name_____ Grade____ Date_____ Instructor_____

Objective: Work and interact effectively with peers, teachers and supervisors.

Administrative Mode: The instructor should review the following questions with a group of students. Group discussion is very important to the development of this specific skill.

1. Have a group discussion about these statements:

   a) What may happen if you are not honest in describing your own abilities to a new employer?

   b) A co-worker requests you change your work schedule so he/she can have a day off from work for a special occasion.

   c) Always making small talk about your co-workers

   d) A disloyal worker is not good advertisement for a company or product.

   e) A loyal employee is good advertisement for a company and product.

2. Will you be a better worker if you are happy in your work?

   a) If your answer is yes to question two, what are some factors which can make you happy at your work?

   b) If your answer is no to question two, what would make you a better worker?

3. Should you be receptive to constructive criticism from your supervisor?

   a) If your answer is yes to this question, what are some of the benefits of accepting suggestions and constructive criticism?

   b) If your answer is no to this question, what are your objectives to suggestions and constructive criticism?

4. If you are not satisfied with certain work practices, how can you contribute to bring about desirable practices?

5. Name two occupations and the ethical standards and codes for these career fields.

Name_____ Grade____ Date_____ Instructor_____

Objective: Know where to find information regarding job openings.

Administrative Mode: The student should respond to all questions individually.

1. Define the following terms:

   a) Employer

   b) Employee

   c) Union

   d) Supply and demand

   e) Want ad shortened words

Ans. _____	Eve. _____
Appt. _____	Gd. sal. _____
Attr. _____	H.S. _____
Bus. _____	Ref. _____
Driv. lic. _____	Temp. _____

   f) Occupational outlook

2. What does a private employment agency do?

3. What does the state employment office do?

4. Should you follow the advice of a friend concerning information about a job?

5. What are some techniques you could use to find a job?

6. What is a job application form? What types of information does it usually ask for?

Name_____ Grade____ Date_____ Instructor_____

Objective: Use appropriate procedures in applying for a job or position.

Administrative Mode: The student should perform the activities described individually.

1. Have student fill in the attached job application.

(need job application)

2. Write a letter in response to the following "Want Ad."

MANUFACTURING ENGINEER

Handle all manufacturing engineering responsibilities in small plant. Facilities include: punch presses, painting, assembly and packaging of high volume, small machine assemblies. Some product design will also be involved. Require a degree in engineering with minimum of 5 years experience. Rural central Connecticut location. Reply:

COURANT BOX 650-W

Application Form

1. WHAT IS YOUR REGULAR LINE OF WORK? _____ HOW LONG HAVE YOU WORKED AT YOUR REGULAR LINE? _____
WHAT KIND OF WORK DO YOU WANT? _____

2. WORK EXPERIENCE: LIST YOUR LAST JOB FIRST, THEN LIST YOUR OTHER MOST IMPORTANT AND LONGEST JOBS.

NAME OF FIRM / ADDRESS / KIND OF BUSINESS	EMPLOYED FROM MONTH YEAR / TO MONTH YEAR	RATE OF PAY	DESCRIBE WORK YOU DID / REASON FOR LEAVING

SUMMATION (FOR OFFICE USE ONLY)

3. FOR VETERANS:
DATE ENTERED SERVICE _____ DATE OF DISCHARGE _____
BRANCH OF SERVICE _____ SERIAL NO. _____

DESCRIBE WORK YOU DID IN ARMED FORCES:

DO NOT WRITE ON THIS SIDE OF HEAVY LINE

A B C D E F G H I J 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

4. PRINT: ▼ LAST NAME FIRST NAME INITIAL

5. SOCIAL SECURITY NO.

16. OCCUPATIONAL TITLES

CODES

6. ADDRESS (STREET, CITY, ZIP CODE)

7. TELEPHONE NUMBER

8. HEIGHT FT. IN. WEIGHT LBS.

9. BIRTH DATE

17. SUMMARY OF SKILLS-INTERESTS & ACTIVITIES

18. LOC. INS. OFF. NO.

19. CONTACT DATES AND BEN. STATUS

10. MARRIED ☐ SINGLE ☐

11. WILL YOU ACCEPT WORK OUT OF TOWN? _____
WILL YOU WORK A NIGHT SHIFT? _____

12. IF UNION MEMBER, GIVE NAME OF UNION AND LOCAL NUMBER

13. DESCRIBE ANY PHYSICAL DISABILITY

THE NEW YORK LAW AGAINST DISCRIMINATION PROHIBITS DISCRIMINATION BECAUSE OF AGE AND SEX

14. YOU MAY / MAY NOT CHECK MY REFERENCES _____ (Applicant's Signature)

15. EDUCATION AND TRAINING (CIRCLE HIGHEST GRADE COMPLETED)

	GRADE SCHOOL								HIGH SCHOOL				COLLEGE			
	1	2	3	4	5	6	7	8	1	2	3	4	1	2	3	4

NAME OF SCHOOL	COURSE OR MAJOR	MINOR	DEGREE	YEAR

20. TOOLS, UNIFORMS, TRANSPORTATION

OWN CAR? YR. MODEL

OTHER TRAINING: (INCLUDE WHERE PERTINENT SUBJECTS LIKED BEST AND LEAST: FOREIGN LANGUAGES; MEMBERSHIP IN PROFESSIONAL SOCIETIES.)

APPLICANTS WHO CLAIM VETERAN STATUS BUT DO NOT PRESENT PROOF MUST SIGN THE FOLLOWING: I CERTIFY THAT I SERVED IN THE ARMED FORCES OF THE UNITED STATES DURING THE PERIOD SHOWN ELSEWHERE IN THIS APPLICATION AND THAT I WAS DISCHARGED UNDER OTHER THAN DISHONORABLE CONDITIONS.

WITNESS _____ SIGNATURE _____

3. Write a resume in response to the following "Want Ad."

Help Wanted

TOOL & DIE MAKER
FIRST CLASS

Must be familiar with and capable of set-up and maintenance of U.S. Baird transfer presses and tooling. Good opportunity and benefits. Send resume, replies confidential.

STERLING
ELECTRIC WIRING
PO BOX 1
VERNON, CONN. 06066
872-8696

4. What is a personal data sheet? What information should be included on a personal data sheet?

5. What is a reference? Should you ask an individual before you give their name as a reference?

6. What is the main purpose of a job interview?

7. Name three different occupations. How would you dress for an interview for a job in each of the occupations?

Name_____ Grade____ Date_____ Instructor_____

Objective: Relate own personal characteristics to occupational requirements.

Administration Mode: The instructor should administer these questions individually to each student reading them aloud and recording responses for the student.

A. Are you interested in a hobby, sport, game, or activity that might be useful for a job?

- ○ Yes (Go to B)
- ○ No (End the exercise)
- ○ I don't know (End the exercise)
- ○ No response (End the exercise)

B. What ONE hobby, sport, game, or activity are you interested in that might be useful for a job?

- ○ None (End the exercise)
- ○ I don't know (End the exercise)
- ○ No response (End the exercise)

Response:_____

C. For what job might this be useful?

- ○ None (End the exercise)
- ○ I don't know (End the exercise)
- ○ No response (End the exercise)

Response: _____

D. How would an interest in (insert response from B) be useful to a (insert response from C)?

- ○ I don't know
- ○ No response

Response:_____

PRESENTING YOUR RESULTS FOR THE OBJECTIVE:
RELATE OWN PERSONAL CHARACTERISTICS TO OCCUPATIONAL REQUIREMENTS

Instructor_____ School_____ Date_____

A. Are you interested in a hobby, sport, game, or activity that might be useful for a job?

Comparison with national sample:	Local Students	National 13 yr olds	National 17 yr olds
- students did not give any response	__ %	0%	0%
- students giving a "yes" response	__ %	72%	64%
- students giving a "no" response	__ %	25%	35%
- students giving "I don't know" responses	__ %	3%	1%

B. What ONE hobby, sport, game, or activity are you interested in that might be useful for a job?

Student responses: (list each)

Comparison with national sample:	Local Students	National 13 yr olds	National 17 yr olds
- students did not give any response	__ %	0%	0%
- students giving acceptable responses	__ %	70%	62%
- students giving a "no" response	__ %	28%	36%
- students giving unacceptable responses	__ %	1%	1%
- students giving "I don't know responses	__ %	1%	1%

C. For what job might this be useful?

Student responses: (list each)

Comparison with national sample:	Local Students	National 13 yr olds	National 17 yr olds
- students did not give any response	__ %	30%	37%
- students giving acceptable responses	__ %	59%	57%
- students giving unacceptable responses	__ %	6%	4%
- students giving "I don't know" responses	__ %	5%	2%

D. How would an interest in (insert response from B) be useful to a (insert response from C)?

Comparison with national sample:	Local Students	National 13 yr olds	National 17 yr olds
- students did not give any response	__ %	2%	2%
- students giving acceptable responses	__ %	57%	57%
- students giving "I don't know" responses	__ %	6%	2%
- students giving "no" response	__ %	35%	39%

Name_____ Grade____ Date_____ Instructor_____

Objective: Know own characteristics relevant to career decisions.

Administrative Mode: The instructor should administer these questions individually to each student reading them aloud and recording responses for the student.

A. What is one thing you enjoy doing that you would like to do better?

- ○ Nothing (End the exercise)
- ○ I don't know (End the exercise)
- No response (End the exercise)

Response:_____

B. How well do you do this compared to other people your age?

- ○ I don't know
- ○ No response

Response:_____

C. How do you know how well you do this?

- ○ I don't know
- ○ No response

Response:_____

D. Have you tried to find out how you could do it better?

- ○ Yes (Go to E)
- ○ No (End the exercise)
- ○ I don't know (End the exercise)
- ○ No response (End the exercise)

E. How did you try to find out?

- ○ I don't know
- ○ No response

Response:_____

PRESENTING YOUR RESULTS FOR THE OBJECTIVE:
KNOW OWN CHARACTERISTICS RELEVANT TO CAREER DECISIONS

Instructor_____ School_____ Date_____

A. What is one thing you enjoy doing that you would like to do better?

Student responses: (list each)

Comparison with national sample:	Local Students	National 13 yr olds	National 17 yr olds
- student did not give any response	__ %	1%	1%
- student gave a "nothing" response	__ %	1%	0%
- student gave an "I don't know" response	__ %	2%	2%
- student gave an unacceptable response	__ %	1%	1%
- students gave an acceptable response	__ %	95%	96%

B. How well do you do this compared to other people your age?

Comparison with national sample:	Local Students	National 13 yr olds	National 17 yr olds
- student not giving any response	__ %	5%	3%
- students giving better or good compared to others the same age	__ %	36%	45%
- students giving some average, fair, or so-so compared with others the same age	__ %	34%	34%
- students giving worse or not too good compared with others the same age	__ %	16%	11%
- student giving another acceptable response	__ %	3%	4%
- student giving unacceptable response	__ %	2%	1%
- student giving, "I don't know" response	__ %	4%	2%

C. How do you know how well you do this?

Comparison with national sample:	Local Students	National 13 yr olds	National 17 yr olds
- students not giving any response	__ %	6%	3%
- students giving "judging what other people say"	__ %	21%	17%
- students giving "judging by grades and tests"	__ %	8%	10%
- students giving "by a personal comparison with others"	__ %	13%	12%
- students giving another comparison	__ %	34%	43%
- students giving another acceptable response	__ %	1%	1%
- students giving an unacceptable response	__ %	7%	6%
- students giving own personal opinion as the way to know how well the activity is done	__ %	4%	4%
- students giving "I don't know" response	__ %	6%	4%

D. Have you tried to find out how you could do it better?

Comparison with national sample:	Local Students	National 13 yr olds	National 17 yr olds
- students giving no response	__ %	0%	0%
- students giving a "yes" response	__ %	74%	79%
- students giving a "no" response	__ %	26%	21%
- students giving an "I don't know response	__ %	0%	0%

E. How did you try to find out how you could do the activity better?

Comparison with national sample:	Local Students	National 13 yr olds	National 17 yr olds
- students did not give any response	__ %	0%	0%
- students giving another person as a source for a way to find out how to do better	__ %	46%	38%
- students giving a source like books as a way to find out how to do better	__ %	7%	8%
- students giving a self-evaluation and/or correction as the way to find out how to do better	__ %	2%	2%
- students giving formal lessons, course, or training as the way to find out how to do better	__ %	6%	16%
- students giving unacceptable responses	__ %	4%	3%
- students giving practice as the way to find out how to do better	__ %	9%	12%
- students giving a "no" response	__ %	26%	21%

Name_____ Grade____ Date_____ Instructor_____

Objective: Plan for career development.

Administration Mode: Read aloud to individual students and record responses.

A. Have you ever thought about the kind of job you would like to have in the future?

- ○ Yes (Go to B)
- ○ No (End the exercise)
- ○ I don't know (End the exercise)
- ○ No response (End the exercise)

B. What jobs have you considered?

- ○ None (End the exercise)
- ○ I don't know (End the exercise)
- ○ No response (End the exercise)

Response:_____

_____

If respondent names only one job, go to D.

C. Which one of these jobs are you most interested in doing?

- ○ None (End the exercise)
- ○ I don't know (End the exercise)
- ○ No response (End the exercise)

Response:_____

D. Name three things about the job that you would like.

- ○ I don't know
- ○ No response

1.) _____

2.) _____

3.) _____

F. Name three things about the job that you might not like.

○ I don't know
○ No response

1.) _____

2.) _____

3.) _____

G. Name three skills or abilities which you must have to do that job.

○ I don't know
○ No response

1.) _____

2.) _____

3.) _____

H. Name three different jobs that you could get into using the same skills or abilities.

○ I don't know
○ No response

1.) _____

2.) _____

3.) _____

PRESENTING YOUR RESULTS FOR THE OBJECTIVE: PLANNING FOR CAREER DEVELOPMENT

Instructor_____ School_____ Date_____

A. Have you ever thought about the kind of job you would like to have in the future?

Comparison with national sample:	Local Students	National 13 yr olds	National 17 yr olds
- student did not give any acceptable response	__ %	0%	0%
- student gave a "yes" response	__ %	86%	93%
- student gave a "no" response	__ %	14%	7%
- student gave a "I don't know" response	__ %	0%	0%

B. What jobs have you considered?

Student responses: (list each)

C. Which of these jobs are you most interested in doing? (list responses according to the following job classifications)

professional and technical: _____
clerical: _____
sales: _____
craftsman: _____
operatives and apprentices: _____
service workers: _____
laborer: _____
other: _____

D. List three things about the job that you would like.

Student responses: (list each)

Comparison with national sample:	Local Students	National 13 yr olds	National 17 yr olds
- student did not give any acceptable responses	__ %	18%	12%
- student gave one acceptable response	__ %	10%	7%
- student gave two acceptable responses	__ %	25%	23%
- student gave three acceptable responses	__ %	47%	58%

E. Name three things about the job that you would dislike.

Student responses: (list each)

Comparison with national sample:	Local Students	National 13 yr olds	National 17 yr olds
- students did not give any acceptable responses	__ %	29%	23%
- student gave one acceptable response	__ %	16%	21%
- student gave two acceptable responses	__ %	21%	23%
- student gave three acceptable re-responses	__ %	34%	33%

F. Name three skills or abilities you must have to do the job.

Students responses: (list each)

Comparison with national sample:	Local Students	National 13 yr olds	National 17 yr olds
- student did not give any acceptable responses	__ %	33%	30%
- student gave one acceptable response	__ %	19%	20%
- student gave two acceptable responses	__ %	24%	25%
- student gave three acceptable re-sponses	__ %	24%	25%

G. Name three different jobs that you could get into using the same skills.

Student responses: (list each)

Comparison with national sample:	Local Students	National 13 yr olds	National 17 yr olds
- student responded "I don't know"	__ %	23%	20%
- student named at least one job similar to future job choice	__ %	39%	46%
- student gave at least one "no connection response"	__ %	19%	21%
- student gave a "no" response	__ %	19%	13%

Name_____ Grade____ Date_____ Instructor_____

Objective: Relating past and future schooling to occupations of interest.

Administration Mode: Each student should answer these questions working individually.

I. Your occupational interests: Work can be enjoyable if it's interesting to you. Look over the eight broad areas of interests described below, check the areas of greatest interest to you on this page, and the chart showing examples of these areas of interests on the next page.

____ SERVICE: Serving the personal needs of others, such as social work, housekeeping, police work, etc.

____ BUSINESS CONTACT: Mainly concerned with face-to-face sales of commodities, real estate, or other services where personal persuasion is involved.

____ ORGANIZATION: Managerial and white-colar jobs in business, industry, and government concerned with the organization and efficient functioning of an office or business.

____ TECHNOLOGY: Includes occupations concerned with production, maintenance, and transportation of commodities and utilities including engineering, repair work, machine trades and communication.

____ OUTDOOR: This group includes agriculture, fishery, forestry, mining, and like occupations.

____ ARTS AND ENTERTAINMENT: Includes both creators and performers in the fields of creative arts and entertainment.

____ GENERAL CULTURAL: Included in this group are occupations in education, journalism, law, and the ministry.

____ SCIENCE: These occupations are primarily concerned with scientific theory and its application.

II. Choice of future occupation: Look over Ann Roe's Occupational Classification System shown below and circle the occupational title which most closely describes your current thinking about your working future. If the occupation of your choice is not listed, write it in under the area of interest you think it belongs taking into consideration the column labeled "Levels."

LEVEL	SERVICE	BUSINESS CONTACT	ORGANIZATION	TECHNOLOGY	OUTDOOR	SCIENCE	GENERAL CULTURAL	Arts and ENTERTAINMENT
Top Professional or Managerial	Psychiatrist Psychologist					Anthropologist Oceanographer	Economist Lawyer	Architect
Professional or Managerial	Social Worker Counselor	Public Relations Worker	Hospital Administrator Certified Public Accountant	Aircraft Pilot Engineer	Surveyor Landscape Architect	Registered Nurse Pharmacist	Clergyman Teacher	Actor or Actress Designer
Semi-Professional or Small Business	Police Chief Recreation Worker	Auto or Insurance Salesman	Hotal Manager Stenographer	Draftsman Flight Engineer	Forest Ranger County Agent	Dental Hygienist X-ray Technician	Radio Announcer TV Announcer	Interior Decorator Photographer
Skilled	Policeman Practical Nurse	Driver-Salesman	Bookkeeper Sales Clerk	Electrician Jeweler	Forestry Technician Miner	Lab Technician Optician		Letterer Paste-up Man
Semi-Skilled	Taxi Driver Waiter		Typist Cashier	Truck Driver Plasterer	Chainman Rodman			
Unskilled	Orderly Bellman		Mail Machine Operator Sorting Machine Operator	Heavy Eqpmt. Operator Cement Mason	Wharf Laborer Lumberjack			

8D-2

III. Educational considerations related to your working future.

1. Choice of occupation is related to your ability to learn. Try to remember how you did on the last achievement test you took. How do you think you did compared to students of your grade level in the nation? (check one)

____ top quarter ____ third quarter

____ second quarter ____ bottom quarter

2. Grades in school are also related to your vocational choice. Think about your year end grades for last year. Indicate where you think you stand in relation to the other community youth your age or grade average. (check one)

____ top quarter ____ third quarter

____ second quarter ____ bottom quarter

3. Keeping in mind your abilities and interests, select the amount of education and job training you are planning immediately following high school. (check one)

____ no further training after high school

____ some training (2-6 months) after high school

____ vocational or technical school (6-18 months) or apprenticeship

____ technical school (6-18 months) or community college (2 years)

____ four years of college

____ advanced degree beyond college

Name_____ Grade____ Date_____ Instructor_____

Objective: Know the future outlook of selected occupations in Connecticut.

Administration Mode: Have students make their best estimates of all but Question #7 below. After completing the first 6 questions, students should study the reference: State of Connecticut: Projected Employment Changes in Selected Occupations and check their answers to the first 6 questions and complete Question #7.

1. Employment within the State of Connecticut from 1974 to 1985 is projected to:

   ____ a. increase by 10%

   ____ b. remain about the same

   ____ c. decrease by 5%

2. Jobs are made possible in two main ways: openings due to persons leaving the labor force and jobs arising because of economic growth. Which of the following statements most accurately describes the job outlook for Connecticut from 1974 to 1985?

   ____ a. economic growth will account for most additional job openings

   ____ b. economic growth and persons leaving the labor force will contribute about equally to total job openings

   ____ c. openings due to persons leaving the labor force will provide almost four times the number of jobs as will arise from economic growth

3. The number of jobs projected to be available annually in the state for the next five to seven years is:

   ____ a. 10,000

   ____ b. 30,000

   ____ c. 60,000

4. The largest occupational group in Connecticut is:

   ____ a. professional (such as engineers, social scientists, and teachers)

   ____ b. services (such as food services, cleaning services and protective service workers)

   ____ c. clerical (such as typists, secretaries, and office machine operators)

5. Which of the following combination of occupational groups will account for most Connecticut job openings between 1974 and 1985?

   ____ a. laborers (stock handlers, construction laborers, etc.) and crafts (mechanics, metal working and printing tradesmen, etc.)

   ____ b. clerical (typists, secretaries, etc.) and services (food service, cleaning service, protective service workers, etc.)

   ____ c. sales (advertising jobs, insurance agents, real estate agents, etc.) and professional (engineers, teachers, etc.)

6. Which of the following combination of occupational groups will account for the least number of Connecticut job openings between 1974 and 1985?

   ____ a. managers (buyers, administrators, proprietors, etc.) and sales (advertising jobs, insurance agents, real estate agents, etc.)

   ____ b. clerical (typists, secretaries, etc.) and services (food service, cleaning service, protective service workers, etc.)

   ____ c. operatives (such as semi-skilled metal working, textile, and packing workers) and crafts (mechanics, metal working and printing tradesman)

7. Think about an occupation in which you have the most interest. Use the reference, State of Connecticut: Projected Employment Changes in Selected Occupations, and determine the following:

   a. Name the area of occupational interest:_____

   b. The job opportunities in the above area will: (check one)

      ____ probably expand over the next 5 to 7 years

      ____ probably decline over the next 5 to 7 years

      ____ probably not change over the next 5 to 7 years

   c. Do you think you will seek employment in this area?

      ____ yes ____ no

   d. Do you know specific places where you can possibly get started in this occupational area? ____ yes ____ no

   e. If yes, give name or location of the place:

      _____

STATE OF CONNECTICUT:
PROJECTED EMPLOYMENT CHANGES IN SELECTED OCCUPATIONS[1]

Occupational Titles	Total Number of Such Jobs in 1985	1974-1985 New Growth or Decline	1974-1985 % Growth or Decline	1974-1985 Need for New & Replacement Workers
TOTAL, ALL OCCUPATIONS	1,463,160	136,780	10%	663,050
PROFESSIONAL, TECHNICAL	244,180	21,800	10%	97,730
A. Engineers, Technical	31,010	1,250	4%	7,580
engineers, aero-astronautic	3,510	- 80	- 2%	250
engineers, chemical	860	130	18%	320
engineers, civil	2,420	190	9%	1,070
engineers, electrical	6,490	400	7%	1,460
engineers, industrial	5,680	160	3%	1,480
engineers, mechanical	6,830	510	8%	1,550
engineers, metallurigical	620	- 30	5%	70
engineers, mining	10	0	0%	10
engineers, petroleum	20	10	33%	20
engineers, sales	1,020	60	6%	320
engineers, other	3,550	-100	3%	1,030
B. Life and Physical Scientists	3,850	220	6%	1,150
agricultural scientists	210	10	5%	140
atmospheric, space scientist	50	0	0%	10
biological scientists	550	50	10%	210
chemists	2,390	120	5%	660
geologists	90	20	29%	30
marine scientists	60	0	0%	0
physicists and astronomers	480	30	7%	110
life, physical scientists NEC	30	- 10	-25%	- 10
C. Mathematical Specialists	2,330	550	31%	1,140
actuaries	1,490	420	39%	740
mathematicians	270	20	35%	140
statisticians	560	40	8%	240
D. Engineers, Science Technicians	21,660	2,430	13%	6,450
agri, biolog tech exc health	610	40	7%	160
chemical technicians	1,490	280	23%	600
drafters	8,150	710	10%	2,380
electrical, electronic tech	3,340	370	13%	770
industrial engineering tech	770	120	19%	260

[1]Permission granted to reprint these projected employment changes taken from pages 53-68 of the Connecticut Occupational Outlook, 1974-1985, a publication of the Employment Security Division of the Connecticut Labor Department.

Occupational Titles	Total Number of Such Jobs in 1985	1974-1985 Net Growth or Decline	1974-1985 % Growth or Decline	1974-1985 Need for New & Replacement Workers
mathematical technicians	10	0	0%	0
mechanical engineering tech	520	- 10	- 2%	100
surveyors	1,110	250	29%	430
engineering, science tech, NEC	5,670	680	14%	1,760
E. Medical Workers Exc Technicians	40,430	9,880	32%	25,690
chiropractors	70	0	0%	70
dentists	2,520	760	43%	1,750
dietitians	510	10	2%	240
optometrists	750	300	67%	560
pharmacists	2,730	260	11%	1,800
physicians, MD osteopaths	8,490	2,910	52%	6,350
podiatrists	500	170	52%	360
registered nurses	20,810	4,230	26%	12,230
therapists	3,560	1,150	48%	2,040
veterinarians	380	20	6%	120
other medical and health wrkrs	130	80	160%	180
F. Health Technologists and Tech	8,950	2,760	45%	5,410
clinical lab technol, tech	2,580	450	21%	1,170
dental hygenists	1,890	880	87%	1,450
health record technol, tech	460	180	64%	400
radiologic technol, tech	1,780	400	29%	940
therapy assistants	130	60	86%	100
other health technol, tech	2,110	790	60%	1,350
G. Technicians, Exc Health	3,510	1,040	42%	1,560
airplane pilots	1,320	400	44%	510
air traffic controllers	170	40	31%	60
embalmers	90	10	13%	50
flight engineers	200	70	54%	90
radio operators	550	110	25%	270
tool programers, numerical	100	20	25%	30
other technicians exc health	1,080	390	57%	550
H. Computer Specialists	7,300	1,200	20%	2,010
computer programers	3,990	520	15%	1,030
computer systems analysts	2,810	590	27%	840
other computer specialists	500	90	22%	140
I. Social Scientists	4,530	660	17%	1,520
economists	3,090	490	19%	1,100
political scientists	70	10	17%	10
phychologists	980	30	3%	180
sociologists	50	20	67%	30
urban and regional planners	300	90	43%	170
other social scientists	40	10	33%	20

Occupational Titles	Total Number of Such Jobs in 1985	1974-1985 Net Growth or Decline	1974-1985 % Growth or Decline	1974-1985 Need for New & Replacement Workers
J. Teachers	46,850	-8,850	-16%	8,650
adult education teachers	1,240	- 80	- 6%	390
college, university teachers	7,430	- 790	-10%	1,440
elementary school teachers	18,540	-3,880	-17%	3,780
preschool, kindergarten	2,990	- 60	- 2%	970
secondary school teachers	12,970	-3,970	-23%	300
teachers NEC	3,680	- 70	- 2%	1,770
K. Writers, Artists, Entertainers	20,210	3,940	24%	11,180
actors	240	40	20%	110
athletes and kindred workers	1,500	380	34%	670
authors	1,140	160	16%	510
dancers	80	30	60%	40
designers	3,000	430	17%	1,340
editors and reporters	3,820	880	30%	2,410
musicians and composers	2,160	380	21%	1,230
painters and sculptors	2,800	760	37%	1,860
photographers	1,490	200	16%	640
public relations specialist	1,860	170	10%	740
radio, TV announcers	190	20	12%	30
writers, artsts, entertain NEC	1,940	490	34%	1,600
L. Other Professional, Technical	53,570	6,710	14%	25,380
accountants	13,940	380	3%	5,640
architects	1,880	160	9%	920
archivists and curators	210	30	17%	180
clergy	2,660	60	2%	1,360
religious, exc clergy	840	140	20%	650
farm management advisors	20	- 20	-50%	0
foresters, conservationists	440	20	5%	150
home management advisors	30	- 10	-25%	0
judges	260	20	8%	270
lawyers	8,300	2,380	40%	5,660
librarians	1,900	-330	-15%	750
operations, systems research	3,930	1,240	46%	1,760
personnel labor relations	6,940	1,120	19%	2,910
research workers, NEC	3,280	490	18%	1,210
recreation workers	2,750	680	33%	1,470
social workers	4,320	320	8%	1,830
vocational, ed counselors	1,890	40	2%	630

Occupational Titles	Total Number of Such Jobs in 1985	1974-1985 Net Growth or Decline	1974-1985 % Growth or Decline	1974-1985 Need for New % Replacement Workers
MANAGERS, OFFICIALS PROPRIETORS	168,900	18,610	12%	79,140
A. Buyers, Sales, Loan Managers	34,860	7,340	27%	16,810
bank, financial managers	11,080	3,000	37%	6,000
credit managers	1,330	280	27%	790
buyers, shippers, farm product	110	40	57%	80
buyers, wholesale, retail	3,010	710	31%	2,090
purchasing agents, buyers	3,860	350	10%	1,320
sales manager, retail trade	7,220	1,310	22%	3,150
sales manager, exc ret trade	8,250	1,640	25%	3,370
B. Administrators, Pub Inspector	14,100	1,840	15%	8,270
assess, control, loc pub admin	570	50	10%	520
construction inspector, pub	330	60	22%	260
health administrators	4,180	1,290	45%	2,850
inspectors, exc construct pub	1,940	490	34%	1,220
officials, admins, pub	3,550	420	13%	2,400
postmasters and maji super	210	- 80	-28%	80
school admin, college	800	0	0%	310
school admin, elem, secondary	2,520	-390	-13%	630
C. Other Managers, Officials, Prop	119,940	9,430	9%	54,060
funeral directors	450	0	0%	240
mgrs, superintendants, bldg.	1,650	520	46%	1,510
office managers, NEC	7,620	1,750	30%	4,140
officer, pilots, pursers, ship	370	50	16%	260
officials of lodges, unions	990	- 90	- 8%	470
railroad conductors	290	- 10	- 3%	110
restaurant, cafe, bar, mgrs	8,750	1,140	15%	4,210
other mgrs, administrators	99,830	6,090	7%	43,140
SALES WORKERS	95,890	12,780		52,230
advertising agents, sales wrk	1,450	390	37%	940
auctioneers	20	- 10	-33%	- 10
demonstrators	750	- 60	- 7%	140
hucksters and peddlers	1,900	-340	-15%	510
insurance agents, brokers, etc	11,440	1,780	18%	5,230
newspaper carrier and vendor	750	- 30	- 4%	80
real estate agents, brokers	8,400	1,940	30%	6,610
stock and bond sales agents	1,470	40	3%	550
sales and sales workers, NEC	69,710	9,050	15%	38,160

Occupational Titles	Total Number of Such Jobs in 1985	1974-1985 Net Growth or Decline	1974-1985 % Growth or Decline	1974-1985 Need for New & Replacement Workers
CLERICAL WORKERS	281,680	40,210	17%	142,880
A. Stenographers, Typists, Secre	91,780	18,630	26%	52,460
secretaries, legal	4,030	1,680	72%	3,150
secretaries, medical	3,810	1,440	61%	2,600
secretaries, other	61,620	13,510	28%	36,140
stenographers	720	-480	-40%	- 90
typists	21,610	2,480	13%	10,660
B. Office Machine Operators	10,670	-1,050	- 9%	1,780
bookkeeping, billing operator	810	0	0%	260
calculating machine operator	430	10	2%	240
computer, peripheral equip	4,770	520	12%	1,100
duplicating machine operator	330	- 70	-18%	60
keypunch operators	3,410	-1,490	-30%	-190
tabulating machine operators	40	- 10	-20%	0
other office mach operators	880	- 20	- 2%	300
C. Other Clerical Workers	179,220	22,630	15%	88,640
bank tellers	7,160	1,530	27%	3,740
billing clerks	3,220	760	31%	1,990
bookkeepers	24,840	640	3%	11,750
cashiers	19,800	2,940	17%	9,940
clerical assist, soc welfare	190	30	19%	120
clerical supervisors, NEC	4,050	680	20%	1,920
collectors, bill and account	720	90	14%	400
counter clerks, exc food	4,790	760	19%	2,880
dispatcher and starter, vehicle	1,070	90	9%	550
enumerators and interviewers	420	- 50	-11%	110
estimators and investigators, NEC	5,860	750	15%	2,650
expeditors, product controllers	6,250	580	10%	2,120
file clerks	4,740	- 10	- 0%	2,110
insurance adjustors, examiners	3,550	650	22%	1,580
library attendants and assistants	2,200	-240	-10%	810
mail carrier, post office	4,030	-450	-10%	320
mail handler exc post office	2,700	390	17%	1,430
messengers and office helpers	540	- 20	- 4%	330
meter readers, utility	460	- 10	- 2%	40
payroll, time keeping clerks	4,980	400	9%	2,680
postal clerks	3,850	-430	-10%	760
proofreaders	870	240	38%	650
real estate appraisers	640	140	28%	600
receptionists	7,840	1,840	31%	5,200
shipping, receiving clerks	7,960	450	6%	3,390

Occupational Titles	Total Number of Such Jobs in 1985	1974-1985 Net Growth or Decline	1974-1985 % Growth or Decline	1974-1985 Need for New & Replacement Workers
statistical clerks	5,450	140	3%	2,470
stock clerks, store keepers	10,320	940	10%	4,450
teachers aides	3,150	- 60	- 2%	660
telegraph messengers	0	0	0%	0
telegraph operators	50	- 10	-17%	20
telephone operators	5,020	-620	-11%	1,560
ticket station, express agent	520	70	16%	220
weighers	730	140	24%	400
misc. clerical workers, NEC	31,250	10,290	49%	20,800
CRAFT AND KINDRED WORKERS	204,220	13,150	7%	71,940
A. Construction Craft Workers	50,450	3,330	7%	18,450
carpenters and apprentices	15,840	880	6%	5,960
brick and stonemasons and appr	2,310	110	5%	690
bulldozer operators	1,480	220	18%	390
cement and concrete finishers	660	80	14%	210
electricians and apprentices	9,120	580	7%	3,010
excavating, grading mach oper	3,500	630	22%	1,160
floor layers, exc. tile setters	300	- 50	-14%	20
painters and apprentices	6,230	20	0%	2,870
paperhangers/plaster	440	10	2%	250
plasterers and apprentices	100	- 30	-23%	10
plumbers, pipefitters and appr	7,320	620	9%	3,090
roofers and slaters	1,260	160	15%	380
structural metal craft workers	1,400	140	11%	380
tilesetters	510	- 30	- 6%	40
B. Blue Collar Worker Supvr, NEC	31,670	1,950	7%	10,970
C. Metalworking Craft Workers	39,020	1,170	3%	13,080
blacksmiths	80	10	14%	70
boilermakers	760	380	100%	580
heat treaters, annealers	780	-300	-28%	50
forge and hammer operators	640	- 20	- 3%	200
job and die setters, metal	8,220	1,330	19%	3,530
machinists and apprentices	10,180	-480	- 5%	2,760
millwrights	1,240	100	9%	410
molders and apprentices, metal	1,340	-150	-10%	260
pattern and model makers	760	-210	-22%	200
rollers and finishers, metal	540	- 50	- 9%	170
sheetmetal workers and appr	4,570	70	2%	1,180
tool and diemakers and appr	10,110	690	7%	3,870

Occupational Titles	Total Number of Such Jobs in 1985	1974-1985 Net Growth or Decline	1974-1985 % Growth or Decline	1974-1985 Need for New & Replacement Workers
D. Mechanics, Repairers, Installer	48,490	5,820	14%	17,100
air cond, heating, refrig mech	4,670	1,200	35%	2,270
aircraft mechanics	3,820	260	7%	1,060
auot accessories installers	220	80	57%	120
auto body repairers	2,410	80	3%	460
auto mechanics and appr	13,850	1,270	10%	3,950
data processing mach repair	960	320	50%	360
farm implement mechanics	630	170	37%	300
heavy equip mech, incl deise	11,810	890	8%	4,490
household appliance mechanic	2,180	320	17%	800
loom fixers	50	- 20	-29%	30
office machine repairers	2,040	760	59%	1,130
radio, television repairers	1,900	380	25%	760
railroad, car shop repairers	140	- 40	-22%	20
other mechanics and appr	3,830	160	4%	1,360
E. Printing Trade Crafts Workers	7,540	170	2%	2,600
bookbinders	390	20	5%	140
compositors and typesetters	3,130	-240	- 7%	1,170
electrotypers, stereotypers	40	- 10	-20%	0
engravers exc photoengravers	220	- 40	-15%	50
photoengravers, lithographer	1,070	180	20%	400
print press oprs and appr	2,690	250	10%	830
F. Transportation, Pub Util Craft	7,450	340	5%	1,270
elec pwr line installer, repr	1,550	250	19%	370
locomotive engineers	300	10	3%	140
locomotive engineer helpers	20	- 40	-67%	- 20
power station operators	250	10	4%	80
telephone installers, repair	4,650	160	4%	690
telephone line instalr, splic	680	- 50	- 7%	10
G. Other Crafts, Kindred Workers	19,610	400	2%	8,500
bakers	2,180	-150	- 6%	820
cabinetmakers	1,200	- 50	- 4%	460
carpet installers	1,090	150	16%	310
crane, derrick, hoist opr	1,890	- 10	0%	490
decorators, window dressers	1,060	50	5%	470
dental lab technicians	850	150	21%	420
furniture and wood finishers	250	20	9%	180
furriers	30	- 10	-25%	60
glaziers	560	120	27%	230
inspectors, log and lumber	10	- 10	-50%	10
inspectors, other	1,990	110	6%	1,110
jewelers and watchmakers	500	30	6%	350
millers, grain, flour and feed	0	0	0%	0
motion picture projectionists	150	20	15%	210

Occupational Titles	Total Number of Such Jobs in 1985	1974-1985 Net Growth or Decline	1974-1985 % Growth or Decline	1974-1985 Need for New & Replacement Workers
opticians, lens grindr, polishrs	1,370	560	69%	1,020
piano, organ tuners, repairers	190	10	6%	150
shipfitters	360	- 20	- 5%	60
shoe repairers	280	-130	-32%	240
sign painters	310	20	7%	170
stationary engineers	1,900	-170	- 8%	680
stone cutters, stone carvers	80	0	0%	20
tailors	660	-190	-22%	350
upholsterers	1,000	80	9%	450
craft, kindred workers, NEC	1,730	-150	- 8%	270
OPERATIVES	221,570	-820	0%	77,890
OPERATIVES, EXC TRANSPORT	177,980	-2,530	- 1%	64,150
A. Semiskilled Metalworking	31,520	-1,130	- 4%	9,080
drill press operatives	2,270	-530	-19%	450
furnace tendrs, smeltrs, pours	1,250	- 80	- 6%	370
grinding machine operatives	5,360	-480	- 8%	1,450
heathers, metal	20	- 20	-50%	- 20
lathe, milling mach operative	4,180	-640	-13%	610
metal platers	1,570	20	1%	580
other precision mach operator	3,470	- 70	- 2%	730
punch stamping press operator	4,330	140	3%	2,020
solderers	710	-480	-40%	-150
welders and flame cutters	8,360	1,020	14%	3,050
B. Semiskilled Textile	2,760	-1,440	-34%	280
carding, lapping, combing op	70	- 70	-50%	10
knitters, loopers, toppers	70	- 40	-36%	- 20
spinners, twisters, winders	820	-370	-31%	160
weavers	280	-160	-36%	40
other textile operatives	1,520	-800	-35%	90
C. Semiskilled Packing, Inspecting	35,950	1,850	5%	15,630
checkers, examiners, etc, mfg	24,630	2,250	10%	11,450
graders and sorters, mfg	200	- 80	-29%	50
meat wrappers, retail trade	1,470	290	24%	750
packer, wrap, ex meat, produce	9,500	-650	- 6%	3,250
prod grdr, packer, ex fac, farm	150	30	25%	120
D. Other Operatives, Exc. Transport	107,750	-1,800	- 2%	39,170
asbestos, insulation workers	740	190	35%	280
assemblers	28,310	1,240	5%	11,200
blasters	40	- 10	-20%	0
bottling, canning operatives	460	0	0%	200
surveyors' helpers	150	- 10	- 6%	0

Occupational Titles	Total Number of Such Jobs in 1985	1974-1985 Net Growth or Decline	1974-1985 % Growth or Decline	1974-1985 Need for New & Replacement Workers
clothing ironers and pressers	1,150	-380	-25%	240
cutting operatives, NEC	3,270	120	4%	1,410
dressmakers, exc factory	2,000	- 60	- 3%	1,390
drillers, earth	500	- 40	- 7%	100
dry wall installers, lathes	1,030	40	4%	190
dyers	560	- 70	-11%	230
filer, polisher, sander, buffer	3,950	-410	- 9%	1,380
garage wrkrs, gas station attn	4,310	-1,160	-21%	-280
laundry, dry cleaning operative	2,240	140	7%	1,190
meat cutters, butcher, exc mfg	3,040	- 30	- 1%	1,120
meat cutters, butchers, mfg	120	- 10	- 8	70
milleners	20	- 10	-33%	10
mine operatives	120	- 30	-20%	0
mixing operatives	1,080	- 20	- 2%	270
oilers, greasers, exc auto	340	-120	-26%	0
painters, mfg articles	2,200	- 80	- 4%	500
photographic process workers	1,070	160	18%	480
riveters and fasteners	540	- 30	- 5%	180
sailors and deckhands	340	60	21%	200
sawyers	490	-180	-27%	150
sewers and stitchers	5,840	-1,900	-25%	2,170
shoemaking machine operatives	190	- 40	-17%	40
furnace tendr, stoker, exc metal	1,510	-210	-12%	630
winding operatives, NEC	1,700	140	9%	600
misc machine operatives	25,500	230	1%	9,670
operatives, NEC	14,960	690	5%	5,560
E. Transport Equipment Operatives	43,590	1,710	4%	13,740
boat operators	30	10	50%	10
bus drivers	4,710	-230	- 5%	2,320
conductor, operatr, urban rail	10	0	0%	0
delivery and route workers	13,730	1,160	9%	4,160
fork lift, tow motor operative	3,210	250	8%	1,110
rail vehicle operators, NEC	0	0	0%	0
parking attendants	320	- 60	-16%	160
railroad brake operators	290	0	0%	80
railroad switch operators	190	20	12%	70
taxicab drivers, chauffeurs	2,660	190	8%	1,850
truck drivers	18,450	380	2%	3,990
SERVICE WORKERS	181,380	31,840	21%	117,520
A. Cleaning Service Workers	32,830	4,520	16%	28,260
lodging quartrs cleanrs exc	2,050	330	19%	1,620
bldg interior cleaners, NEC	14,010	3,670	36%	12,160
janitors and sextons	16,780	530	3%	14,490

Occupational Titles	Total Number of Such Jobs in 1985	1974-1985 Net Growth or Decline	1974-1985 % Growth or Decline	1974-1985 Need for New & Replacement Workers
B. Food Service Workers	65,090	15,450	31%	36,210
bartenders	3,730	1,100	42%	2,590
waiters' assistants	3,050	770	34%	960
cook, exc private	16,320	5,040	45%	10,730
dishwashers	3,450	500	17%	1,630
food counter, fountain worker	7,660	1,330	21%	3,870
waiters	23,390	6,000	35%	12,590
food workers, NEC, exc priva	7,500	720	11%	3,850
C. Health Service Workers	35,330	11,220	47%	23,890
dental assistants	2,590	790	44%	1,640
health aides, exc nursing	3,260	950	41%	2,010
health trainees	90	-110	-55%	- 60
lay midwives	0	0	0%	0
nurses aides, orderlies	18,240	5,170	40%	11,390
practical nurses	11,160	4,420	66%	8,920
D. Personal Service Workers	19,460	1,670	9%	11,830
flight attendant	150	60	67%	110
atten, recreation, amusement	980	150	18%	700
atten, personal service, NEC	820	- 20	- 2%	690
baggage porters and bellhops	80	- 10	-11%	20
barbers	2,740	650	31%	2,240
boarding, lodging housekeeper	260	50	24%	290
bootblacks	0	- 10	-100%	0
child care workers, exc priva	3,830	170	5%	2,480
elevator operators	170	-100	-38%	230
hairdressers, cosmetologists	7,060	520	8%	3,270
housekeepers, exc private	1,470	- 80	- 5%	770
school monitors	400	- 10	- 2%	100
ushers, recreation, amusement	240	- 30	-11%	60
welfare service aides	1,270	340	37%	880
E. Protective and Service Worker	22,990	2,700	13%	14,440
crossing guard, bridgetender	1,120	- 20	- 2%	1,600
firefighters	4,810	530	12%	1,300
guards	8,180	470	6%	7,660
marshals and constables	40	10	33%	10
police and detectives	8,550	1,680	25%	3,290
sheriff and bailiffs	300	40	15%	590
F. Private Household Workers	5,680	-3,720	-40%	2,890
child care workers	1,510	-1,210	-45%	240
cooks, private	210	-130	-38%	180
housekeepers, private	590	-360	-38%	450
launderers, private household	20	- 30	-60%	10
pri household cleanrs, servan	3,350	-1,980	-37%	2,020

Occupational Titles	Total Number of Such Jobs in 1985	1974-1985 Net Growth or Decline	1974-1985 % Growth or Decline	1974-1985 Need for New & Replacement Workers
LABORERS, EXCEPT FARM	58,200	3,090	6%	21,860
animal caretakers, exc farm	3,010	160	6%	1,360
carpenters, helpers	880	- 80	- 8%	140
construction laborers, other	9,600	60	1%	2,490
fishers, hunters and trappers	240	10	4%	120
freight, material handlers	9,440	420	5%	3,050
garbage collectors	1,710	390	30%	740
gardens, groundkeepr, exc farm	9,550	30	0%	6,330
longshore workers, stevedore	150	30	25%	70
timbercutting, logging worker	70	- 10	-13%	0
stock handlers	13,210	1,950	17%	3,500
teamsters	20	10	100%	10
vehicle washers, equip cleaner	2,130	-100	- 5%	360
warehouse laborers, NEC	1,330	-130	- 9%	320
other laborers	6,880	380	6%	3,400
FARMERS AND FARM WORKERS	7,150	-3,870	-35%	1,870
A. Farmers and Farm Managers	2,630	-1,480	-36%	1,480
farmers (owners and tenants)	2,250	-1,460	-39%	1,380
farm managers	380	- 20	- 5%	100
B. Farm Laborers, Farm Supervisor	4,520	-2,390	-35%	390
farm labor supervisors	240	- 50	-17%	0
farm laborers, wage wrkrs	3,370	-1,960	-37%	0
farm laborers, unpaid family	880	-380	-30%	350
farm laborers, self-empl	30	- 10	-25%	30

3. Write a resume in response to the following "Want Ad."

Help Wanted

TOOL & DIE MAKER
FIRST CLASS
Must be familiar with and capable of set-up and maintenance of U.S. Baird transfer presses and tooling. Good opportunity and benefits. Send resume, replies confidential.
STERLING
ELECTRIC WIRING
PO BOX 1
VERNON, CONN. 06066
872-8696

4. What is a personal data sheet? What information should be included on a personal data sheet?

5. What is a reference? Should you ask an individual before you give their name as a reference?

6. What is the main purpose of a job interview?

7. Name three different occupations. How would you dress for an interview for a job in each of the occupations?

Norwich Public Schools
Mahan Drive
Norwich, Connecticut 06360

QUESTIONNAIRE ABOUT ASSESSMENT EXERCISES THAT MEASURE WORK SKILLS GENERALIZABLE TO A BROAD RANGE OF OCCUPATIONS

1. Your name: _____

2. Your business, occupation, or profession:

_____

3. City and state where you work:

_____

4. Contact with high school graduates:

__ See them in their jobs at work
__ Employer of high school youth
__ Teach high school youth
__ Teach teachers of high school youth
__ Education consultant

5. Please indicate your viewpoint about preparing high school youth interested in employment upon graduation:

__ High schools can and should prepare youth in specific job skills.
__ High schools should prepare youth in generalized skills that can be transferred to a broad range of occupations.
__ High schools should emphasize both of the above.
__ Other viewpoint (please state) _____

_____

6. The following are work skills areas that can be generalized to a broad range of occupations. The National Assessment of Educational Progress Project developed these for the area of career and occupational development. Please comment alongside the items if you feel any of these are not generalizable skills in your estimation, or at the bottom of the listing if you feel other skills are more important for this category. Not commenting at all means that you generally concur with the listing.

Numerical skills

Communication skills

Manual/perceptual skills

Information-processing skills

Problem solving and decision-making skills

Interpersonal skills

Employment-seeking skills

Career-improvement skills

7. A set of test exercises purported to assess "generalized skills that can be transferred to a broad range of occupations" has been forwarded to you along with this questionnaire. These exercises were developed for instructors of occupational school offerings. It is hoped that instructors will find several of the objective packets useful enough to duplicate and use in their occupational coursework. Use of the packets is expected to accomplish <u>any</u> of the following purposes:

   Broaden the scope of specific occupational approaches.
   Assess generally useful work skills of students.
   Encourage instructors to assess work skills often in their coursework.
   Evaluate total class progress in work skills over some time period.
   Stimulate instructors to develop their own work skill exercises.

   Please review the test exercises and give me your frank opinion about the following questions:

   A. Are the <u>statement of objectives</u> at the beginning of each exercise packet generally important to the job success of high school graduates?

      ____ The objective statements need rethinking (please explain below).
      ____ The objectives are important, but some need revision (please explain below).
      ____ The objectives are important and well stated as far as they go.

   B. How <u>generalizable are the work skill exercises</u> to the range of occupations in which high school graduates will find employment?

      ____ Assessment exercises are too specific to expect carryover to a broad range of occupations.
      ____ Some exercises are generalizable to the variety of jobs high school graduates will find.
      ____ Most exercises are generalizable to the variety of jobs high school graduates will find.

   Any comment for improvement?

C. What potential do the work skill exercises have to measure "on-the-job behaviors?"

____ The exercises really don't measure on-the-job behaviors (Please explain below).
____ Some of the exercises measure on-the-job behaviors (Please explain below).
____ Most of the exercises measure on-the-job behaviors.

Other comment:

D. Assessment exercises have been developed for students ranging from 13 years of age (8th grade students) to 18 year olds (12th grade students). How do you judge assessment exercise readability.

____ A number of the exercises are more appropriate for younger students.
____ A number of the exercises are too difficult to read.
____ Most 13 through 18 year olds should find most of the exercises interesting and easy enough to read.

Any other comment?

E. Having reviewed the assessment exercises, please rate their potential to serve each of the purposes for which they were developed. The purposes have been restated below.

high potential	average potential	low potential	
___	___	___	1. Broaden the scope of specific occupational approaches.
___	___	___	2. Assess generally useful work skills of students.
___	___	___	3. Encourage occupational instructors to assess work skills often during coursework.
___	___	___	4. Evaluate total class progress in work skills over some time period.
___	___	___	5. Stimulate instructors to develop their own work skill exercise packets.

F. Please write in any other comments you feel would improve the exercise package.

I appreciate your effort to help get an appraisal of the test exercises. Please return this completed questionnaire in the addressed envelop forwarded. Adequate postage has been attached.

Wallace R. Roby
July 1978